

The Swiss Family Robinson

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take some food," said she, "with the body, the mind is strengthened; this will probably be a night of trial." The tempest continued with unrelenting fury, tearing away the planks from the devoted vessel with a fearful crashing, and making the whole vibrate so that we expected every moment it would go in pieces.

My wife had prepared some refreshment, of which the children partook with an appetite that we could not feel. The three younger ones retired to their berths, and were soon in a profound sleep. Fritz, the eldest, watched with us. "I have been considering," said he, "how we might be able to save ourselves. If we could only find some cork jackets or bladders for mamma and my brothers, you and I don't need them, we could then swim with them to land." "A happy thought," I replied; "let us try, during the night, to contrive some expedient to secure our safety." We accordingly sought in our little cabin for such empty barrels as seemed large enough to keep a person afloat. These we tied together in pairs with our handkerchiefs, leaving a space between for each child, and fastened this new swimming apparatus under their arms. My wife prepared the same for herself. This done, we collected some knives, string, tinder-box, and such little necessities as we could secure about our persons, hoping, even if the vessel went to pieces before morning, that we might thus be able to reach the shore.

My Fritz being by this time worn out with his exertion, composed himself down on his bed, and was soon asleep like a log. As for me and my poor wife, we continued to tremble at every wave which threatened to engulf us. We spent that most dreadful night in prayer, and in various plans. How gladly we welcomed the dawn when the wind began to abate, the clouds disappeared, and I watched the sun rise with renewed hope. My wife and children on deck, when the latter for the first time perceived with astonishment that we were still alive.

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despair. Let all hands set to work. God helps those who help themselves. Let us all consider what is best to be done now." "Let us leap into the sea," cried Fritz, "and swim to the shore." "Very well for you," replied Ernest, "but we cannot swim, and should all be drowned. Would it not be better to construct a raft, and go all together?" "That might do," added I, "if we were strong enough for such a work, and if a raft was not always so dangerous a conveyance. But go and look about you, and see whether you cannot find something that may be useful to us in our present situation."

At these words, all dispersed to different parts of the vessel. For my own part, I went to the provision room, to ascertain if we had still the means of present subsistence within our reach. My wife, accompanied by the youngest of our boys, visited the live stock and fed them, for they were already severely suffering from hunger and thirst. Fritz went in search of arms and ammunition. Ernest laid hold of the carpenter's tools, while Jack set off to ransack the captain's cabin. But the instant the little fellow opened the door, two huge dogs sprang out, and leaped on him with such boisterous demonstrations of joy that he cried out as if they were going to devour him. However, hunger had rendered them so docile that they licked his hands, and he soon recovered his feet, seized the largest by the ears, and mounting his back, gravely rode up to me as I was coming from the hold. I could not help laughing; I applauded his courage; but recommended him always to be prudent with animals of that kind, who are often dangerous when hungry.

The various explorers soon returned with their prizes. Fritz had found two fowling-pieces, as well as ~~shot~~ and well-filled powder-flasks. Ernest was loaded with ~~an~~ axe and hammer, a pair of pincers, a large pair of ~~scissors~~, and an auger showed itself half out of his pocket. Francis had a large box under his arm, from which he eagerly produced what he called little pointed hooks. His brothers laughed at his prize. "Silence," said I, "the youngest has perhaps made the most valuable addition to our stores. These are-fishing hooks, and may be more useful for the preservation of our lives than anything

the ship contains. However, Fritz and Ernest have not done amiss."

"As for me," said my wife, "I am the bearer of good news, since I am able to inform you that we have still safely on board a cow, an ass, two goats, six sheep, a ram, and a sow with young. I have fed them, and hope we may preserve them."

"All that you bring," said I, "is excellent, save Master Jack's companions, who will do us more harm than good." "Not at all," said Jack, "they can help us to hunt when we get to land." "Yes," replied I, "but can you devise any means of our getting there?" "Oh," said the spirited little fellow, "put us each into a great tub, and let us float to shore. I remember sailing capitably that way on grandpapa's great pond at S——." "A very good idea, Jack; good council sometimes proceeds even from the mouth of a child. Be quick, boys, give me the saw and auger, with some nails; we will see what we can do." I remembered having seen some empty casks in the hold. We went down and found them floating. Without very great difficulty we succeeded in getting them upon the lower deck, which was but just above the water. They were of strong wood, bound with iron hoops, and exactly suited my purpose; my sons and I therefore began to saw them through the middle. After long labour, we had eight tubs all the same height. We refreshed ourselves with wine and biscuit which we had found in the cabin. I contemplated with delight my little squadron of boats ranged in a line, and was surprised to see that my wife looked on them with an air of despondency and fear. "I shall never be able," said she, "to venture on the sea in one of these."

"Wait a little, till my work is finished," replied I, "and you will see it is more to be depended on than this shattered wreck."

I sought out a long flexible plank, and arranged my eight tubs on it, nailing them firmly to it, leaving a piece at each end to form a curve upwards, like the keel of a vessel. I secured two other planks in like manner along the sides, and by the time my work was finished I had produced a very tolerable boat, divided into eight compartments, and which appeared by no means unsuited for navigation over a

calm sea. But, unluckily, our wonderful vessel proved so heavy, that our united efforts could not move it an inch. I sent Fritz to bring me the jack-screw, and, in the meantime, I set to work to saw up a thick round pole into short rollers; then raising the forepart of our work by means of the powerful machine, Fritz placed one of these rollers under it.

Ernest was very anxious to know how this small machine could accomplish more than our united strength. I explained to him, as well as I could, the power of the lever, and I promised to take the machine to pieces when we were on shore, and explain the mode of operation. I then told them that God, to compensate for the weakness of man, had bestowed on him reason, invention, and skill in workmanship. The result of these had produced a science which, under the name of *Mechanics*, taught us to increase and extend our limited powers incredibly by the aid of instruments.

Jack remarked that the jack-screw worked rather slowly. "Better slowly, than not at all," said I. "It is a principle in mechanics that what is gained in time is lost in power. The jack is not meant to work rapidly, but to raise heavy weights; and the heavier the weight, the slower the operation. But can you tell me how we can make up for the slowness?" "Oh, of course; by turning the handle quicker." "No; that would not aid us at all. Patience and reason are the two fairies by whose potent help I hope to get our boat afloat."

I now attached a long rope to the afterpart of the raft, and the other end to a beam in the ship; then introducing two more rollers underneath, and working with the jack, we succeeded in launching our bark, which passed into the water with such velocity, that but for our rope it must have been carried far beyond our reach. Unfortunately, it leaned so much on one side, that none of the boys would venture into it. A sufficiency of ballast soon removed this objection, and everything seemed ready for our escape. The boys raised a shout of joy, and contended who should be the first to enter. I saw well, however, that we could not venture in it with safety, as the slightest movement would still be liable to upset it. To obviate this danger



"Great was our joy when we found that our formidable enemy was none other than our faithful Turk."—P. 19.

more effectually, I proceeded to construct outriggers, similar to those which savage tribes employ for the same end. I fixed two portions of a top sail-yard, one over the prow, the other across the stern, in such a manner that they should not be in the way in pushing off our boat from the wreck. I forced the end of each yard into the bung-hole of an empty brandy-cask, to keep them steady during our progress.

It was now necessary to clear the way for our departure. I got into one of the tubs, and succeeded in getting the boat into the cleft in the ship's side, by way of a haven; I then cut away, right and left, all that could obstruct our passage. Then we secured some oars, to be ready for our voyage next day.

It was late before our plans were thus far carried out; and we were compelled to spend another night on the wreck, though we knew that it was in danger of going to pieces before the morning. We took a hearty meal, for during the day we had scarcely had time to snatch a morsel of bread and a glass of wine. More composed than on the preceding night, we retired to rest. I took the precaution to fasten the swimming apparatus across the shoulders of my three younger children, and my wife, for fear another storm might destroy the vessel, and cast us into the sea. I also advised my wife to exchange her dress for that of a sailor, as more convenient for her expected toils and trials. She reluctantly consented, and, after a short absence, appeared in the dress of a young man who had served as a volunteer in the vessel. The novel costume made her feel very awkward at first, but the feeling soon wore off; I showed her the advantage of the change, and she was reconciled. She then got into her hammock, and we enjoyed a tranquil sleep—the best preparative for the labours that were before us.

CHAPTER II.

THE LANDING.

At break of day we were all astir. After morning prayer, I addressed my children thus: "We are now, my dear boys, with the help of God, about to attempt our deliverance. Before we go, give the poor animals on board

both food and drink enough to last them for several days. Perhaps we may yet be able to return and rescue them. Let all re-assemble speedily, and bring with them such things as are indispensable for our present wants. My plan



was to take along with us a barrel of powder, three fowling-pieces, three muskets, two pair of pocket-pistols, and one pair larger, ball, shot, and lead as much we could carry, with a bullet-mould. I sought out also for my wife and each of the children, game-bags, which had belonged to the officers of the ship. I took next a case of portable soup,

and another of biscuit, an iron pot, fishing-tackle, a chest of nails, and one of carpenter's tools, and canvass enough to make a tent. In fact, we had collected so many things, we were compelled to leave some behind, though I substituted the weightier ones for the ballast which had been thrown in the night before.



When all was ready, we implored the blessing of God on our undertaking, and prepared to embark. At this moment the cocks crowed a sort of reproachful farewell to us; we had forgotten them: I immediately proposed to take our poultry with us, geese, ducks, fowls, and pigeons, "For," said I to my wife, "if we cannot feed them, they will feed us." The ten hens and two cocks were, accordingly, placed in one of the tubs, and over this a grating was secured to prevent their escape; the rest we set at liberty, hoping the

geese and ducks might reach the shore by water, and the pigeons by flight.

We waited now only for my wife, who came at length, having under her arm a well-filled bag, which she threw into the tub beside little Francis. I concluded it was intended to steady him, or for a seat, and made no observation on it. We all got into our places. In the first division sat the tender mother—the faithful and pious wife; in the second, our amiable little Francis, nearly eight years old; in the third, Fritz, our eldest, a curly-headed, clever, intelligent, and lively youth of fifteen years; in the fourth, the powder-cask, with the fowls and the sail-cloth; our provisions filled the fifth; in the sixth, our heedless Jack, ten years old, enterprising, bold, and useful; in the seventh, Ernest, twelve years of age, well informed and rational, but somewhat selfish and indolent; in the eighth, myself, an anxious father, charged with the important duty of guiding the vessel to save my dear family. Each one took along with him what clothes were indispensable; and provided with oars, and with floats attached to us in case of being over-set, we at length pushed out from the wreck into the open sea. The tide was rising as we set off, and lent its aid to further my weak endeavours. We turned our outriggers lengthways, and thus passed from the cleft of the ship into the open sea. My children gazed with longing eyes on the land which lay in sight, and we plied our oars in hopes of reaching it, though for a time in vain, as the boat kept turning round, and made no progress. At last I discovered the right way to steer it, and we went straight forward. The two dogs no sooner saw us quit the vessel than they leaped into the water, and swam after us. Turk was an English dog, and Bill one of Danish breed. Both were of large size, so that we dared not attempt to take them into our boat, for fear they should upset it. I was very sorry, for I hardly expected they would be able to swim to land; but, by occasionally resting their forepaws on our outriggers, they managed to keep up with us.

Our navigation, though tedious, was safe; but the nearer we approached the land, the more dreary and unpromising it appeared. The bare and arid rocks seemed to announce to us nothing but famine and misery. The sea was calm;

and as we drew near the shore it was strewn with casks, chests, and broken portions of the wreck. In the hope of securing a supply for present necessities, I contrived to lay hold of two floating hogsheads, which, with the help of Fritz, were secured by ropes, and towed along with us without difficulty.

As we approached, the coast seemed to lose somewhat of its sterile look. Fritz distinguished various trees, some of which he declared were palms, and Ernest already rejoiced in the prospect of gathering cocoa-nuts larger and finer than any seen in Europe. I was regretting not having brought the large telescope from the captain's cabin, when Jack produced from his pocket a smaller one, which he offered me with no little pride. With its aid I observed that the land, which had appeared a mere savage desert, now presented a more inviting aspect towards the left. A strong current was carrying us away, however, towards the rocky shore, when I perceived a little bay to which the ducks and geese had already made their way. Into this I succeeded with some difficulty in steering the boat, and we landed at a place where the coast was about the height of our tubs, and the water deep enough to let us approach.

All that were able leaped on shore in a moment. Even little Francis, who had been laid down in his tub like a salted herring, tried to crawl out, but was compelled to wait for his mother's assistance. The dogs, who had preceded us in landing, welcomed us in a truly friendly manner, leaping playfully around us; the geese kept up a loud cackling, to which the ducks quacked a powerful bass, while the wild flamingoes responded in unfamiliar notes. These latter were in immense numbers, and their voices almost deafened us, especially as they did not accord with the harmony of our civilized fowls. However, I rejoiced to see these feathered creatures, already fancying them on my table, should we be obliged to remain in this desert region.

Our first care, when we stepped in safety on land, was to kneel down and thank God, to whom we owed our lives, and to resign ourselves wholly to his Fatherly kindness. We then commenced to unload our vessel, and already thought ourselves rich with the little we had saved. We next sought a conve-

nient place for erecting our tent, and making a shelter for the night. This was speedily discovered. One end of a long spar was inserted into a fissure in the rock, and the other supported by a pole fixed in the ground; the sail-cloth was then stretched over it, and fastened down at proper intervals by pegs, to which, for greater security, we added some boxes of provisions; we fixed some hooks to the canvass at the opening in front, that we might close the entrance during the night. This done, I sent the boys to gather some moss and withered grass, which we spread out in the sun so as to provide us with soft beds; and while all, even little Francis, were thus busy, I constructed a fire-place with stones at some distance from the tent, on the margin of a stream which was to supply us with fresh water. I next gathered together a quantity of dried twigs and branches of trees, and soon had a cheerful blaze; on this I placed the pot, filled with water, into which I dropped several cakes of portable soup, and left my wife, with little Francis for her assistant, to prepare the dinner. To this Francis saw many insurmountable difficulties, in the absence alike of ship-steward or butcher's shop. He took the portable soup for glue, and could not conceive how mamma could make a dinner of it.

Meanwhile Fritz, who had charge of the muskets, took one and proceeded along the river side; Ernest declined accompanying him, as the rugged road was not to his taste; he preferred the seashore. Jack proceeded to a ridge of rocks on the left in search of mussels. I myself went to try and draw the two floating hogsheads on shore, but could not succeed, for our landing-place was too steep to get them up. Whilst I was vainly trying to find a more favourable place, I heard my dear Jack uttering most alarming cries. I seized a hatchet, and ran to his assistance. I found him up to the knees in a shallow pool, where a large lobster had seized him by the leg, and resisted all his attempts at release. It made off at my approach; but, guided by the agitation of the water, I struck a blow at it with the hatchet, and soon brought it to shore. Jack, now very triumphant, wished to present it himself to his mother, after watching how I held it. But he had hardly got it into his hands, when it gave him such a violent blow with its tail that he let it fall, and began to cry again. I could not help laughing at him, and, in his rage, he seized a stone and

put an end to his adversary. I was grieved at this, and recommended him never to act in a moment of anger, showing him that he was unjust in being so revengeful. Jack promised to be more discreet and merciful in future, and obtained leave to bear the prize to his mother.

"Mamma," shouted he, "a lobster! A lobster, Ernest! Where is Fritz? Take care, Francis, or it will bite you."



They all crowded round in astonishment. "Yes," added he, triumphantly, "here is the impertinent claw that seized me, but I repaid the knave." "You are a boaster," said I; "you would have got indifferently on with the lobster if I had not come to your aid. You have no reason to be proud, Jack." Ernest urged the propriety of boiling the lobster forthwith, but his mother, with a spirit of economy, reserved it for

another day. Meanwhile I walked to the spot where Jack's lobster was caught, and, finding it favourable for my purpose, drew my two hogsheds on shore there, and secured them by turning them on end.

On returning, I congratulated Jack on being the first fortunate discoverer, and promised him the claws of the lobster for his reward. "Oh!" said Ernest, "I also have discovered some excellent provisions, only I did not bring them, as I could not get at them without wetting my feet." "And what were these, my delicate little man?" said I. Ernest replied that he had seen oysters on a rock, and had also plenty of salt in the fissures of the rock, which he thought had perhaps been produced by the evaporation of the sea-water. "Doubtless, my little philosopher," said I; "if you are sure they are oysters, I will trouble you to return and procure us some for our dinner. We must all unite in working for the public good, regardless of wet feet. The sun will soon dry us. Bring also some of the salt, about which you reason so sagely, if you would not dine on our insipid and tasteless soup."

He went, and returned with some salt, so mixed with sand and earth, that I should have thrown it away as useless; but my wife dissolved it in fresh water, and, filtering it through a piece of canvass, managed to flavour our soup with it.

Jack asked why we could not have used sea-water, and I explained to him that the bitter and nauseous taste of sea-water would have spoiled our dinner. Meanwhile my wife stirred the soup with a little stick, and, tasting it, pronounced it very good. "But," said she, "we must wait for Fritz; and if he were here, I see not how we are to take it. How shall we eat our soup without plates or spoons? We cannot lift this large pot of boiling soup to our mouths?" We gazed stupidly at one another, and at our pot, and then burst into a hearty laugh at our destitution, and our folly in forgetting such useful necessaries.

"If we only had cocoa-nuts," said Ernest, "we might cut them in two and—" "Doubtless!" I replied; "but we have none! We might as well wish for a dozen silver spoons at once, if wishes were of any use." "I have it," exclaimed Ernest, "we can use oyster-shells." "Perfectly true," said I; "that is what I call a happy thought; go directly and get the oysters; and remember, lads, no complaints, though the



"My wife remonstrated against leaving the fowls even for a single night."—P 48

spoons are without handles, and you should dip your fingers into the bowl." Off ran Jack, and was up to his knees in the water before Ernest, with characteristic tardiness, had reached the margin. He detached the oysters in haste, and threw them to his idle brother, who filled his handkerchief with them; taking care himself to secure in his pocket a large shell for his own use; and soon both returned with a goodly supply. Almost at the same moment Fritz appeared, with a feigned air of disappointment, and his hands behind him. "Empty handed?" said I. But Jack, who had glided round him, cried out, "A sucking pig! a sucking pig! where have you found it? Let us see it!" Fritz now produced his prize; it was an *agouti*. I recognised it from the description of travellers; it is common in these regions; a swift animal, which burrows in the earth, and lives on fruits and nuts; but its flesh, something like that of the rabbit, has an unpleasant flavour to Europeans.

I seriously reproved my son for his little fiction, and warned him never to use the least deceit, even in jest. Fritz expressed his regret, and then related that he had been on the other side of the river; "a very different place to this," he continued. "The shore lies low, and you can have no idea of the number of casks, chests, planks, and all sorts of things the sea has thrown up. Why not go at once, and get hold of them? and why not return to the vessel to look after the animals we have left? We might at least have the cow here; the biscuits will be so much the better for her milk; and on the other side of the river there is such excellent pasturage. Why should we remain an instant on this barren spot?" "Not so fast," said I, as soon as I could get a word in. "There is a time for all things. To-morrow, and the day after to-morrow, will have their work. But first tell me, did you see anything of our shipmates?"

"Not a trace of man, living or dead, on land or sea," replied he; "but there are hogs on the shore; most singular hogs, for they have feet like hares."

While we were discussing the peculiarities of these hogs, Jack had been busily employed trying in vain to open an oyster with his knife. I laughed at his unavailing zeal, and, placing an oyster on the hot coals, it opened almost immediately of itself. "Now," said I, "who fancies this delicacy?"

for, in truth, they were no favourites of mine. All, at first, declined the unattractive repast. After some hesitation, however, Jack set the example, and, closing his eyes, desperately swallowed one as if it had been medicine. To insure a spoon, the rest followed his example, but all agreed that oysters were not good. The shells were now employed for their destined use, though not without sundry scalded fingers. We were compelled to have patience. Ernest took his large



shell from his pocket, cautiously filled it with a good portion of soup, and set it down to cool, exulting in his own prudence. "You have been very thoughtful, my dear Ernest," said I; "but why are your thoughts always for yourself—so seldom for others? As a punishment for your egotism, that portion must be given to our faithful dogs. We can all sup our

shells into the pot, the dogs cannot; therefore they shall have your soup, and you must wait, and eat as we do."

My reproach struck his heart, and he placed his shell obediently on the ground, which the dogs emptied immediately. We were almost as hungry as they were, and were watching anxiously till the soup began to cool; when we perceived that the dogs were tearing and gnawing Fritz's agouti. The boys shouted and screamed, while Fritz, excited beyond all reasonable control, seized his gun, struck the dogs, threw stones at them, and would have killed them had I not withheld him. He had actually bent his gun with striking them. As soon as he would listen to me, I reproached him seriously for his violence, and represented to him how much he had distressed us and terrified his mother; that he had spoiled his gun, which might have been so useful to us, and almost killed the poor animals, who might be more so. When his temper was calmed, he saw the danger and sin of giving way to such ungovernable bursts of passion, acknowledged his error, asked pardon, and shed bitter tears.

The sun was low on the horizon before we had finished our simple repast. Soon after, the fowls began to gather round us to pick up the crumbs of biscuit we had let fall. My wife then took out her mysterious bag, and drew from it some handfuls of grain to feed her poultry. She showed me also many other seeds of useful vegetables. I commended her forethought, and begged her to be very economical, as these seeds were of great value, and we could bring from the vessel some damaged biscuit which would prove equally acceptable to the fowls.

The pigeons now retired to the holes in the rocks; the cocks and hens went to roost on the top of our tent; and the ducks and geese withdrew to the shelter of some low bushes on the margin of the river. We were ourselves no less ready for repose at the close of this eventful day. We loaded all our arms, then offered up our prayers, thanking God for his signal mercy to us, and commending ourselves to his care. When the last ray of light departed, we closed our tent and lay down on our beds, close together. The children had remarked how suddenly the darkness came on, from which I concluded we were not far from the equator. The more perpendicularly the rays of the sun fall, the less

their refraction; and consequently night comes on suddenly when the sun descends below the horizon.

Once more I looked out to see if all was quiet; then, carefully closing the entrance, I lay down. Warm as the day had been, the night was intensely cold, and we were glad to creep together for warmth. The children soon slept; and when I saw their mother in her first peaceful slumber, my own eyes closed; and our first night in the island passed quietly, and without anything to alarm us.

CHAPTER III.

A TOUR OF DISCOVERY.

AT break of day I was awake by the crowing of the cock, and immediately called my wife to consult on our future proceedings. We agreed that our first duty was to seek for our shipmates, and to examine the country beyond the river before we came to any decisive resolution. My wife at once perceived that it was impossible for the whole family to proceed on such a tour, and courageously agreed to remain with her three youngest sons, while Fritz, as the strongest and most adroit, should accompany me. I begged her to prepare breakfast immediately; and awakening the children, asked Jack what had become of his lobster. While he ran to fetch it from a crevice in the rock where he had placed it, I told Fritz of our proposed excursion. "An excursion! an excursion!" shouted the children. All were anxious to go on the journey, and leaped round me like little kids. "It is impossible," said I, "for you to accompany us to-day. Fritz and I will be able to cope with any ordinary danger we may encounter, but it is otherwise with you. Remain here, therefore, in safety beside your mother, and we will leave Bill with you for defence, while Turk accompanies us." I then directed Fritz to take a gun, a game-bag, and a hatchet. I placed also in his belt a pair of pistols, and equipped myself in like manner, and took care to carry biscuit and a flask of fresh water. Our preparations were scarcely completed, when my wife summoned us to breakfast. The lobster proved so tough and unpalatable that enough remained over, which



Bravo, my noble sportsman! you have rendered good service to our
fowls and pigeons.—P O

we packed up for our journey, without any objection. Fritz was now impatient to be off, but Ernest reminded him that I had already spoken of another duty which we must not neglect. "And what is that?" said he, somewhat hastily. "We have not prayed to God," replied Ernest seriously. "That is it, my dear boy," said I. "We are too ready to forget God, to whom we owe all the blessings of life, and whose protecting care we are now so specially called upon to acknowledge." Jack, who had overheard me, started up and began to imitate the sound of church bells—"Ding dong! to prayers! to prayers! ding dong!" I reproved the thoughtless boy severely for making light of so serious a subject. Then, kneeling down, I prayed God's blessing on our undertaking, and his pardon for us all, especially for him who had now so grievously sinned. Poor Jack came and knelt by me, weeping and begging forgiveness from me and from God. I embraced him, and enjoined him and his brothers to obey their mother. I then loaded the guns I left with them, and charged my wife to keep near the boat, their best refuge.

We took leave of the others with many tears, as we did not know what dangers might assail us in an unknown region. We heard them calling after us with mingled words of encouragement and apprehension, until the murmur of the river, which we were approaching, drowned their voices, and we bent our thoughts on our journey.

The banks of the river were so high and steep that we had to proceed some distance in search of a ford. When at length we reached the other side we had to travel a considerable way through tall rank grass. We made our way with difficulty, directing our course towards the sea, in hopes of discovering some traces of the boats or the crew. We had scarcely gone a hundred yards, when we heard a loud noise and rustling in the grass. We imagined we were pursued by some wild beast, and I was gratified to observe the courage of Fritz, who, instead of running away, calmly turned round and presented his piece. Great was our joy when we found that the formidable enemy was none other than our faithful Turk, whom we had forgotten in the grief of parting, and our friends had doubtless despatched him after us. I loaded the trusty animal with caresses, and congratulated Fritz on

his presence of mind; a rash act might have deprived us of this valuable friend.

Pursuing our course, we arrived near the sea-shore, and were filled with admiration at the beauty of the country. We looked on every side in vain for any traces of our companions, and examined the sand with equally little success, in hope of discovering some traces of their footsteps. Fritz proposed to fire his gun as a signal to them, if they should be near us; but I reminded him that this signal might also attract the notice of savage foes, whom we had little wish to see.

"But why," said Fritz, "give ourselves so much trouble to search after those who so unfeelingly abandoned us on the wreck?" "For various reasons, my dear boy," I replied. "First, we must not return evil for evil. Besides, it may be that they can assist us, though now they are more likely to stand in need of our aid. Above all, remember, they could save nothing but themselves. We have got many useful things which they have as much right to as we." Fritz, however, still remonstrated that we might be making our way back to the ship, and saving the cattle; but I replied that we should do our duty better by saving the lives of men; besides which, the sea was calm, and the cattle had abundant food for some days, so that no immediate cause of danger was apparent as regards them.

While thus discoursing together, we pushed along vigorously till we arrived at a wood which extended to the sea. We rested in the shade, near a clear stream, and took some refreshment. Birds of rare plumage flew about us. Fritz thought he saw some monkeys among the leaves, and the restlessness of Turk confirmed him in this idea. Fritz ran off to assure himself of the truth of this, when he fell over a large round substance, which he brought to me, observing that it might be a bird's nest. "It is a cocoa-nut," said I. "Do you not know that this nut is inclosed in a thick fibrous covering, covered with an outer skin? The latter, I perceive, is decayed, which is the reason of the fibrous appearance which has deceived you. Break it open, and you will find the nut inclosed." On breaking the shell, we found it was indeed a cocoa-nut, but quite decayed and uneatable.

"I always understood, father," said Fritz, "that cocoa-nuts were full of a pleasant and refreshing milk." "Such is the case," I replied. "The nut is pleasant both for food and drink when it hangs half-ripe on the tree; it thickens and hardens as the nut ripens. If it falls on a good soil it will germinate, and the bud soon burst its covering, and grow up to become, in course of time, a large tree; but if it falls where no suitable soil encourages vegetation, it decays as you have now seen." Fritz continued his questions as we proceeded on our journey; and, after a time, he was so fortunate as to find another cocoa-nut, sufficiently fresh to afford us a pleasant repast. We were some time before we got through the wood, being frequently obliged to clear a way with our hatchets. At last we entered the open plain again, and had a clear view before us. The forest still extended about a stone's throw to our right; and Fritz, who was always on the look-out for discoveries, observed a remarkable tree, here and there, which he approached to examine; and he soon called me to see this vegetable wonder. On coming up, I was overjoyed to find this tree, of which there were a great number, was the gourd-tree, which bears fruit on the trunk. Fritz was greatly puzzled to conceive what the singular protuberances could be. "Try," said I, "if you can get hold of one of them, and we will examine it." "Here is one," he exclaimed, "very like a pumpkin, only harder outside." "Of this," said I, "we shall be able to make plates, dishes, basins, and flasks. We call it the gourd-tree." Fritz inquired if the gourd was fit for eating. "Harmless, I believe," said I, "but by no means delicate. Its great value to savage nations consists in the shell, which they use to contain their food and drink, and even for cooking in it." Fritz could not comprehend how they could cook in the shell without burning it. I told him the shell was not placed on the fire; but, being filled with cold water, and the fish or meat placed in it, red-hot stones are, by degrees, dropped into the water, till it attains sufficient heat to cook the food, without injuring the vessel.

We now set about fashioning our gourds into dishes and plates. I showed Fritz a better plan of dividing the gourd than with a knife. I tied a string tightly round the nut, struck it with the handle of my knife till an incision was

made, then tightened it till the nut was separated into two equally-sized bowls. Fritz had spoiled his gourd by cutting it awry with his knife. I advised him to try and make spoons of it, as it would not do for basins now. I had learnt my plan from books of travels, which describe it as the method employed by savages who have no such knives as ours. To make bottles, they tie a bandage round the young gourd, near the stalk, so that the part at liberty expands in a round form, and the compressed part remains narrow. They then open the top, and extract the contents by putting in pebbles and shaking it.

We now resumed our march, leaving our newly-manufactured dishes to dry in the sun, having first taken the precaution to fill them with sand, to prevent them from shrinking. As we went on, Fritz amused himself with cutting spoons from the rind of the gourd, while I essayed to make another out of a piece of cocoa-nut shell; but it must be owned that little could be said in praise of either of our productions. We recalled to mind the manufactures of the South Sea Islanders which we had seen in museums at home, and were compelled to confess that the savages were our masters in such work. While we talked, we did not neglect looking about for our lost companions, but in vain. At last, we arrived at a neck of land which stretched far into the sea, and rose in one part to a considerable height. We attained the summit with great labour, and saw before us a magnificent prospect of land and water; but, with all the aid our excellent telescope gave us, we could in no direction discover any trace of man. Nature appeared in all her wild charms. The luxuriant verdure of the shores, and the placid stillness of the sea, which was here inclosed by a large bay terminating in another promontory beyond, would have filled our minds with unmingled satisfaction, but for the reflection that those we had been in search of probably now lay engulfed beneath the sea that looked so calm and gentle. We did not feel less, however, the mercy of God, who had preserved us, and cast us on a shore, which held out so good a prospect of needful supplies.

We now descended the hill, directing our course towards a pleasant wood of palm-trees, to arrive at which we were obliged to traverse a jungle covered with reeds and long

grass, which greatly obstructed our progress. We advanced with caution, being apprehensive of treading on some deadly serpent, or some other venomous reptile, who choose such retreats. We made Turk go before us to give timely notice of danger, and cut a long, thick cane as a weapon of defence. I was surprised to see a glutinous juice oozing from the cut end of my staff. I tasted it, and was convinced that we had met with a plantation of sugar-canes. I sucked more of it, and found myself singularly refreshed. I did not immediately announce my discovery to Fritz, preferring that he should make it for himself; I therefore desired him to cut himself a cane like mine, and soon saw him brandishing it about his head, and striking right and left as he cleared his way through the dense grove of reeds. The effect of this was as I anticipated; the sap soon exuded in abundance, and I saw him put his hand to his mouth. He cried out in ecstacy, "Oh, papa! papa! a sugar-cane!—delicious! How delighted will dear mamma and my brothers be at the discovery!" He went on, sucking pieces of cane so greedily that I was obliged at length to interfere, under the apprehension that he would injure himself by his excess. He was then content to take some pieces to regale himself as he walked home; but he gathered a bundle of the best canes he could select to carry home for his mother and brothers. We now entered the wood of palms to eat our dinner, when suddenly a number of monkeys, alarmed by our approach, and by the barking of Turk, fled with such rapidity up the trees that we had scarcely observed them before they were at the top. Having reached this safe elevation, they proceeded to grin and chatter at us, expressing their anger at the disturbance by the most discordant noises. As I saw the trees were cocoa-palms, I hoped to obtain, by means of the monkeys, a supply of fruit. I held Fritz's arm, who, irritated by their derisive gestures and noise, was preparing to shoot at them. I urged on him the folly and cruelty of killing a poor animal that could be of no value as food, and excited no just apprehensions of danger. Besides, the monkeys would be of more use to us living than dead, as I would show him. I accordingly collected some stones, and began to throw them at the monkeys; and, though I could not nearly reach them on their lofty perch, they exhibited every mark of irritation, and,

seizing the cocoa-nuts within their reach, hurled them on us in such quantities, that we had some difficulty in escaping from them. Fritz laughed heartily at my stratagem; and, when the shower of cocoa-nuts had ceased, he collected as many as he wished. We now sought a convenient spot for enjoying the repast thus provided; and, after sucking some



of the milk by means of the holes which we opened with our knives, we broke the nuts open with the hatchet, and ate, with much satisfaction, of the kernel. We liked best a sort of thick cream which adheres to the shells, from which we scraped it with our spoons, and, mixing it with the juice of the sugar-cane, we produced a delicious dish. Tark had the rest of the lobster, which we no longer valued with some



"I saw the harpoon shining in the distance, and the turtle was rapidly drawing us along by the line."—P. 75.

biscuit. I now gathered together such of the cocoa-nuts as had long stalks, and threw them over my shoulder. Fritz resumed his bundle of sugar-canes, and we set out homewards.

CHAPTER IV.

RETURN FROM THE TOUR OF DISCOVERY.—NOCTURNAL ALARM.

We had not proceeded far on our return, when Fritz began to show symptoms of fatigue. He passed the bundle of canes frequently from one shoulder to the other, and at length exclaimed, "I could not have believed that a mere bundle of canes would have proved so burdensome. But I shall be well repaid by the pleasure they will afford to my mother and brothers." I extracted from his bundle a cane for a staff, and he followed my example. By-and-by I began to suck the cane, and Fritz attempted to do the same, but was surprised to find he failed in extracting any of the juice. "What can be the reason," he at length said, with some impatience, "that I cannot get a drop out of it?" I replied, laughing, that it was because he neglected to employ the right means. "Ah!" said he, "I remember the reason now. I must make an incision above the first knot in the cane. If I draw in my breath in sucking, and thus make a vacuum in my mouth, the outer air forces itself through the hole I have made to fill this vacuum, and carries the juice along with it; and when this division of the cane is emptied, I can proceed to pierce above the next knot. I am only afraid that if we proceed at this rate we shall have nothing but empty canes to carry to our friends." I told him, that I was more afraid the sun might turn the syrup sour before we got our canes home, therefore we need not spare them.

"Well," said Fritz, "if the sugar is spoiled, I shall have the satisfaction of carrying home a good supply of the cocoa-milk, with which I have filled my flask." "I fear, my dear boy," I replied, "that your labour, in that respect, will prove equally vain. The milk of the cocoa-nut, removed from the shell, is equally liable to be thus affected; and exposed as it

is in your tin flask to the rays of the sun, I would not greatly wonder if it is already vinegar." "How provoking," he exclaimed, "I must examine it immediately;" but he had scarcely loosened the cork of his flask, with a view of tasting its contents, when the liquor flew out with a report, foaming like champagne. I congratulated him on his new manufacture. "My prediction, I see, is in the way of being verified shortly," I remarked; "but take care, my boy, what use you make of that potent beverage. It will go to your head." "Oh! father, only taste it: it is delicious, not at all like vinegar, but capital new, sweet, sparkling wine. The treat I had intended for them will be even greater than I anticipated." "I fear it will not be so," said I. "This is the first stage of fermentation. When this is over, and the liquor is cleared, it is a sort of wine. By applying heat, a second and slower fermentation succeeds, and the liquor becomes vinegar. Then comes on a third stage, which deprives it of its strength, and spoils it. I fear, in this burning climate, you will carry home only vinegar, or something still more offensive. But let us enjoy it while it lasts, though with moderation, if we would wish to escape the effects which all fermented liquors produce."

Perfectly refreshed, we proceeded with renewed vigour, and soon arrived at the place where we had left our gourd utensils. We found them quite dry, and hard as bone, and put them in our bags. We had scarcely got through the little wood where we had breakfasted when Turk darted furiously in among a troop of monkeys, who were sporting about, and had not perceived him. He immediately seized a female, holding a young one in her arms, which impeded her flight, and had killed the poor mother before Fritz could reach him. The young ape watched from a little distance with impotent rage the cruel death of its mother. When Fritz approached, it sprang nimbly on his back, fastening its paws in his curls, and neither cries, threats, nor shaking could disengage it. I could not help laughing at the ludicrous scene; and as I saw there was no danger, the poor little monkey being in even greater terror than Fritz, the cries and grimaces of the two were sufficiently diverting. "There is no choice," I said; "it is obvious that the little orphan, having lost its mother, has chosen you as its adopted father." I caressed it, and offered it something to eat, and at length succeeded in gently disengaging it. I

took the poor little thing in my arms like an infant, and could not help regarding it with pity. It was obviously incapable of providing its own food, and if abandoned by us must inevitably perish. Unwilling as I was to add another to our number under present circumstances, I yielded to Fritz's importunities, and agreed that it should be taken home on condition that he should take the entire charge of it. This he cheerfully consented to.

Turk, in the meantime, was feasting on the remains of the unfortunate mother. Fritz would have driven him off; but such a proceeding would have answered no good purpose; I saw that so large and voracious a dog must be allowed the full license of a hunter, if we would not have him become a burden, and even a terror to us. We left him, therefore, with his prey, the little orphan sitting on the shoulder of his protector, while I carried the canes. Turk soon overtook us, and was received very coldly; we reproached him with his cruelty, but he was quite unconcerned, and continued to walk after Fritz. The little monkey seemed uneasy at the sight of him, and crept into Fritz's bosom, much to his inconvenience. But a thought struck him; he tied the monkey with a cord to Turk's back, saying, "Since you have killed the mother, it is only just that you should bear the child." The dog was at first inclined to be rebellious; but we succeeded at last, by alternate scolding and caressing, in reconciling him to his burden. As an additional precaution, however, Fritz retained hold of the cord, so as to prevent Turk wandering out of sight.

This expedient greatly amused me. "We will return like a couple of showmen," said I; "your brothers will be in ecstasies at the sight." "Yes, indeed," replied Fritz, "and Jack will find in our little cavalier a model for grimace, and an excuse for his impertinent tricks." "Do you then, my son," said I, addressing him with some gravity, "take your mother and myself as your models, and display greater forbearance towards your brothers. Such bitter remarks on the levity and sportiveness of your younger brothers are not such as I like to hear from you." Fritz promptly acknowledged the impropriety of his remark, which had been uttered without reflection; and we resumed the conversation which had so pleasantly beguiled the way, so that we were on the river's

bank and near our new home again before we were aware. Bill barked to announce our approach, and Turk answered with such vehemence, that the terrified little monkey leaped from his back to the shoulder of its protector, and would not come down. Turk ran off to meet his companion, and our dear family soon appeared on the opposite shore, shouting with joy at our happy return. We crossed at the same place as we had done in the morning, and were speedily in one another's arms.

The children were impatient to examine what we had brought back with us, and presently set up a cry of joy. "A monkey! a real, live monkey! Ah! how delightful! How did you catch him? What a funny fellow! If we had only something to give him. But what are we to do with these staves? What sort of things are these papa carries?" My wife was no less intent on learning of our adventures and our welfare, so that it was impossible to reply to their eager questionings.

At length, when we got a little peace, I told them that, though I had brought them all sorts of good things, I had, unfortunately, not met with any of our companions. "God's will be done!" said my wife, earnestly; "let us thank Him for saving us, and again bringing us together now. This day has seemed an age. But put down your loads, and let us hear your adventures; we have not been idle, but we are less fatigued than you. Boys, assist your father and brother."

Jack accordingly took my gun, Ernest the cocoa-nuts, Francis the gourd-rinds, and my wife the game-bags. Fritz distributed his sugar-canes, and replaced the monkey on Turk's back, to the great amusement of the children. He begged Ernest to carry his gun, but he complained of being overloaded with the great bowls. His indulgent mother took them from him, and we proceeded to the tent. "If Ernest knew what he was relinquishing," said Fritz, "he would not have parted with them so easily. These are cocoa-nuts you have given to mother." "Cocoa-nuts!" exclaimed Ernest in great delight; "give them to me, mother, I shall carry them, and the gun too." His mother declined giving them. "I can throw away these sticks," said he, "and carry the gun in my hand." "I would advise you not," observed Fritz, "for the

sticks are sugar-canes." "Sugar-canes!" exclaimed the whole in one voice; and little farther progress could be made, till Fritz had told of his discovery, and shown each how to suck the juice of the canes.

My wife, who had a proper respect for sugar in her house-keeping, was much pleased with this discovery, and the history of all our acquisitions which I displayed to her. Nothing gave her so much pleasure as our plates and dishes, which were actual necessities. We went to our kitchen, and were gratified to see preparations going on for a good supper. My wife had planted a forked stick on each side the hearth; on these rested a long thin wand, on which all sorts of fish were roasting, Francis being intrusted to turn the spit; on the other side was a goose roasting by means of a similar contrivance, while a row of oyster-shells formed the dripping-pan. Besides this, the iron pot was on the fire, from which arose the savoury odour of a good soup. Behind the hearth stood one of the hogsheads, opened, and containing the finest Dutch cheeses, inclosed in cases of lead. All this was very tempting to hungry travellers, and very unlike a supper on a desert island. I congratulated my family on their diligence in my absence, though I could not altogether conceal my sense of my wife's improvident liberality in having recourse to our small number of poultry, when other provisions were so abundant. "Have no uneasiness, my dear," said my wife; "this is not from our poultry-yard, it is a wild goose that Ernest has killed."

"Yes, father," exclaimed Ernest, "it is a stupid penguin. I knocked it down with a stick. It is web-footed, has a long narrow beak, a little curved downwards. I have preserved the head and feet for you to examine; it exactly resembles the penguin of my book of natural history." I commended the intelligent reasoning of the boy, and was proceeding to communicate some farther information about the bird, when my wife interrupted me. "There is a time for everything," said she; "besides, do you not see that the child's eyes are all the while fixed on the cocoa-nuts? Ernest has killed the bird; I received it; we shall eat it. What more would you have? Let the poor child have the pleasure of examining and tasting the cocoa-nuts." "Very well," replied I; "Fritz must teach them how to open them; and we must not forget the little monkey, who has lost his mother's milk." "But he will eat

nothing," said Jack; "I have offered him everything I could think of." I explained to him that it was probable the poor little animal had hitherto been nourished solely by its mother's milk, and recommended Fritz to try him with the milk of the cocoa-nut till more suitable food could be found. Jack would have given the whole supply to the new favourite, but Ernest and Francis were anxious to taste the milk themselves. "And so must we all," said mamma. "Supper is ready, and we will reserve the cocoa-nuts for dessert."

We sat down on the ground, and the supper was served on our gourd-rind service, which answered the purpose admirably. The children had already broken several of the nuts, which they found excellent; nor was the little monkey forgotten. They dipped the corner of their handkerchiefs in the milk, and then gave it him to suck, which he seemed to do with relish. They were going to break up some more nuts, after emptying them through the natural holes, but I stopped them, and called for a saw. I carefully divided the nuts with this instrument, and soon provided us each with a neat basin for our soup, to the great comfort of my dear wife, who was gratified by seeing us able to eat like civilized beings. Fritz now begged leave to treat us all to a taste of his delicious champagne, to which I offered no objection, only recommending that he should set the example in tasting it. Great indeed was his mortification on finding that it was already changed into vinegar. My wife, however, regarded the transformation with no such feelings of regret. By her advice it was employed as sauce to the penguin, and greatly improved the fishy-tasted dish, so that Fritz was pleased to see that his exertions had not proved altogether in vain.

The sun was going down as we finished supper, and, recollecting how rapidly night succeeded, we hastened to our tent, where we found our beds much more comfortable, from the considerate attention of my wife, who had collected a considerable quantity of dry moss and grass. After prayers, we all lay down, the monkey between Jack and Fritz, wrapped in a plentiful covering of dry hay. The fowls went to their roost, as on the previous night, and, after our fatigue, we were all soon in a profound sleep.*

We had not slept long, when a great commotion among the dogs and fowls announced the presence of an enemy. My



"Gentlemen, I am going to teach you all a new business—that of miller
and baker —P 80

wife, Fritz, and I, each seizing a gun, rushed out. By the light of the moon, we saw a terrible battle going on: our brave dogs were surrounded by a dozen jackals. Four of them were soon strangled in the grip of our faithful defenders; but the remainder still pressed on them, and threatened to overpower them, when a well-directed shot from both Fritz and myself laid two of their assailants dead and put the others to flight, with some of their number wounded. Turk and Bill pursued and completed the business, and then, like true dogs, devoured their fallen foes, regardless of the bonds of relationship.

Fritz, having obtained my leave, singled out the one which had fallen by his shot, and dragging it, not without some difficulty, near the tent, placed it under cover, so as to show it to his brothers in the morning. We all slept peacefully the remainder of the night, till the crowing of the cock awoke my wife and myself to a consultation on the business of the day.

CHAPTER V.

RETURN TO THE WRECK.

"My dear wife," I began, "I feel rather alarmed at all the labours I see before me. A voyage to the wreck is indispensable, if we wish to save our cattle, beside the many other useful articles we were forced to leave behind. On the other hand, I should like to have a more secure shelter for ourselves and our property than this tent." "With patience, order, and perseverance," said my wife cheerfully, "all may be done. We must be content to do one thing at a time. I confess I would prefer that the return to the wreck could be avoided; but, since it must be so, the sooner you go the better." It was agreed, accordingly, that the three youngest children should remain with their mother, and Fritz, the strongest and most active, should accompany me.

I then arose, and woke my children. Fritz, who was the first to get up, ran to find his jackal, which had already stiffened in the cold night air. He placed it erect at the entrance of the tent to surprise his brothers; but no sooner did the dogs see it standing apparently ready to assail them,

than they flew at it, and would have torn it to pieces if he had not soothed and called them off. However, their barking effectually roused the boys, who rushed out to see the cause. Jack issued first, with the monkey on his shoulder; but no sooner did the little creature perceive the jackal, than he fled into the tent and hid himself among the moss, till only the tip of his nose was visible. All were greatly astonished at this strange sentinel at the door. Ernest pronounced it to be a fox, Jack a wolf, and Francis a yellow dog. Fritz laughed at their different names, and specially ridiculed that of Ernest, who was greatly offended at being made the subject of his merriment. I reproved Fritz for his ridicule of his brother, and Ernest for so easily taking offence; and, to reconcile all, I told them that the jackal partook of the nature of the wolf, the fox, and the dog, so that there was good sense and probability in all the names. This discussion terminated, I summoned them to our morning devotions, after which we proceeded to breakfast. We had nothing but biscuits, which were so dry and hard that they almost bade defiance to our hungry teeth. Fritz begged for a little cheese with it; while Ernest, who had been already examining one of the unopened hogsheads, now came to me and said, "Father, if we had only butter to these biscuits, it would be a vast improvement." "Always with these foolish *ifs* of yours," I replied. "Don't you know, my boy, that a morsel of this good cheese is worth all the butter in the world when we have it not?" "But perhaps my *ifs* might not be so foolish," said Ernest, "if you would open that cask." "What cask are you talking about?" said I. "It is this cask I mean, to be sure," replied he. "I have already had my knife in it, and it is filled with excellent salt butter." "Indeed," said I, "your instinct for good things is of service for once. Come boys, who wants bread and butter?" After some consideration, I cautiously made a small opening in the lower end of the cask, so as to extract a little of the butter without exposing the whole to injury by the air and heat of the sun. We then sat down to breakfast with a cocoa-nut basin filled with good salt Dutch butter. We toasted our biscuit, buttered it hot, and agreed that it was excellent. While we were thus employed, the dogs had remained patiently at our side; and I remarked that they

had bloody marks of the last night's fray—some deep and dangerous wounds, especially about the neck. My wife instantly dressed them with butter, well washed in cold water; and the poor animals seemed grateful for the ease it gave them. Ernest judiciously remarked that they ought to have spiked collars to defend them from any wild beasts they might encounter. "Oh!" said Jack, in his usually ready way, "if mamma will only help me, I will make them collars!" "Very good, my little man," said I, "exercise your inventive powers, and let us see what you can devise. You, Fritz, come along with me. Your mother and I have already decided that it is necessary I should return to-day to the wreck to bring back as much as is recoverable. You will accompany me, while your brothers remain to assist their mother."

While Fritz made ready the boat, I erected a signal-post, with a piece of sail-cloth for a flag, to float as long as all was going on well; but, if we were wanted, they were to lower the flag and fire three guns, when we would immediately return; for I had informed my dear wife it might be necessary for us to remain on board all night; and she consented to the plan, on my promising to pass the night in our tubs, instead of the vessel. We took nothing but our guns and ammunition, relying on the provisions left on board. Fritz, however, insisted on taking the little monkey, that he might give it some milk from the cow. We took a tender leave of each other, and embarked. When we had got a little way out from the shore, I perceived that a current set in the direction we were going, occasioned by the force of the river, and we were glad to avail ourselves of its aid. Though altogether inexperienced in maritime affairs, I succeeded in steering our boat so as to keep its head to the current, and we were carried by this means a considerable way towards the wreck, with little or no exertion on our parts. When this failed us, we resumed our oars, and soon entered the opening in the vessel, secured our boat firmly, and went on board.

The animals welcomed us with manifest joy, though it was obvious that they had not suffered from our absence, as a part of their food still remained untouched. We put the young monkey to a goat; he seemed to find the milk most

palatable, and greatly amused us by the lively grimaces with which he testified his joy. Having seen that the animals were sufficiently supplied with food and drink, we took some refreshment ourselves, and consulted together on the best mode of proceeding. Fritz advised that we should begin by providing a sail for the boat. "For," said he, "the current which helped us to the vessel cannot carry us back; but the wind which blew so strongly against us, and made our rowing so fatiguing, would be of great service if we had a sail." The advice seemed excellent, and we forthwith proceeded to put it into execution. I selected a strong pole for a mast, and a triangular sail, which was fixed to a yard. We made a hole in a plank to receive the mast, secured the plank on our fourth tub, forming a deck, and then, by aid of a block used to hoist and lower the sails, raised our mast. Two ropes, fastened by one end to the yard, and by the other to each extremity of the boat, enabled us to direct the sail at pleasure. Fritz next ornamented the top of the mast with a little red streamer, and named our improved craft the *Deliverance*. To complete its equipment, I contrived a rudder, so that I could direct the boat from either end.

While thus employed the day had already advanced, so that I saw it would be impossible to effect anything satisfactory without spending the night where we were. We accordingly made a concerted signal; and spent the rest of the day in emptying the tubs of the stones we had used for ballast, and replacing them with useful things—powder and shot, nails and tools of all kinds, pieces of canvas, and clothing. The ship had been freighted for the purpose of establishing a new colony at the place whither we were bound, so that it contained an unusually large supply of articles peculiarly suited to our present circumstances; and our greatest difficulty was to make a prudent selection. Our experience had taught us already the need of an abundant supply of knives, forks, spoons, and kitchen utensils of all sorts. In the captain's cabin we found a service of silver plate, covers and dishes of pewter, and a hamper filled with choice wines. All these were secured, along with a stock of provisions intended for the officers' table—portable soup, Westphalian hams, sausages, &c.; also some bags of maize, wheat, and other

seeds, and some potatoes. We collected all the implements of husbandry we could spare room for, and, at the request of Fritz, some hammocks and blankets, three handsome guns, and an armful of sabres, swords, and hunting-knives. I added a barrel of sulphur to make matches with, and all the cord and string I could lay my hands on. Our tubs were loaded to the edge; there was barely room for us to sit; and it would have been dangerous to attempt our return if the sea had not been so calm.

Night arrived, we exchanged signals to announce security on sea and land, and, after prayers for the dear islanders, we sought our tubs, not the most luxurious of dormitories, but safer than the ship. Fritz slept soundly, but I could not close my eyes, thinking of the jackals. I comforted myself, however, with the thought of the faithful dogs, which had already proved such efficient protectors to us all, and felt grateful to Heaven for having given us so ready a means of defence. ✓

CHAPTER VI.

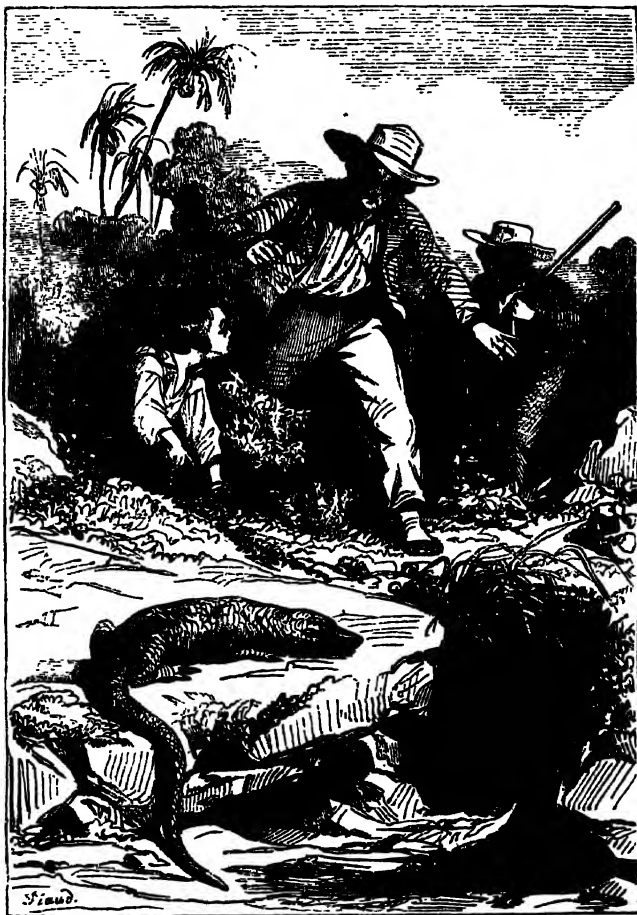
FLOATING THE HERD.

As soon as day broke, I mounted on deck, and, with the help of the large telescope, had the satisfaction of not only seeing the signal which denoted the safety of my family still floating in the breeze, but, while Fritz was busy preparing our breakfast, I kept my eye on the tent, and at length was gratified by seeing my wife come out of it and look with attention towards the wreck. We exchanged signals of mutual recognition by pulling our flags up and down, and then Fritz and I proceeded to do ample justice to a breakfast of biscuit, ham, and wine; after which we turned our thoughts to the means of saving our cattle. Even if we could construct a raft, we could never get all the animals to remain quiet on it. We might venture the fat sow in the water, but the rest of the animals we found would not be able to swim ashore. At last Fritz suggested a floating apparatus. This we passed two hours in constructing. We selected a sheep for our first experiment, and having attached floats to its side, threw it into the sea. I watched the poor animal with a mixture of hope

and fear. It sunk, and I thought was never to re-appear, but presently we saw its head above water, where it floated without any exertion. With some little difficulty we got a rope round it, and drew it back to the wreck. We now proceeded



to provide the whole with this novel swimming invention. For the cow and ass it was necessary to have an empty cask on each side, well bound in strong sail-cloth, fastened by leather thongs over the back and under each animal. A quantity of cork which we discovered on board proved a more convenient means for providing the smaller animals with floats; the sow was the most troublesome, and gave us much annoyance, but after two hours' hard labour we had the satisfaction of seeing all ready. We fastened a cord to the horns or neck of each animal, with a piece of wood at the end for a convenient handle. The waves had already made a considerable



"I recognized in the object of his apprehension a large iguana."—P. 98.

breach in the side of the wreck, and this we soon enlarged sufficiently to give free egress to the cattle. We first launched the ass into the water, where he floated in gallant style. The cow, sheep, and goats followed quietly after. The sow was furious, and soon broke loose from us all, but fortunately reached the shore long before the rest.



We now embarked, fastening all the slips of wood to the stern of the boat, thus drawing our train after us, and the wind filling our sail, carried us smoothly towards the shore. I once more took out my telescope, and was remarking that our party on shore seemed making ready for some excursion, when a loud cry from Fritz filled me with terror. "We are lost! we are lost! See, what a monstrous fish!" Though pale with alarm, Fritz aimed his gun and fired with such success, that he hit the monster in the head. It plunged immediately

and disappeared, leaving, however, a track of blood behind it, which showed that the shot had taken good effect. I laid aside my telescope for my gun, in case of a repetition of the attack, and with the rudder in hand guided the boat without further risk to a convenient place for the cattle landing. The animals, as soon as the water became low enough, walked out at their own discretion, after we had relieved them from their swimming girdles. We then secured our boat as before, and landed ourselves, anxiously looking round for our friends. We had not long to wait, they came joyfully to greet us; and, after our first burst of pleasure, we sat down to tell our adventures in a regular form. My wife was overjoyed to see herself surrounded by these valuable animals; and especially pleased that her son Fritz had proved so valuable a counsellor to me. We next proceeded to disembark all our treasures.

I now observed that Jack wore a belt of yellow skin, in which were placed a pair of pistols. "Where," said I, "have you got this smuggler's costume?" "It is my own manufacture," said he, with an air of satisfaction; "and look also at the dogs!" The dogs wore each a collar of the same skin as his belt, bristling with long nails, the points outwards—a formidable defence. "It is a marvel," said I, "if you have been able both to devise and execute this." "Indeed, father," replied he, "it is my own work, with some help from mamma in the sewing of them." The skin of Fritz's jackal had supplied the leather, at which he evidently felt a little vexation; but on his showing some symptoms of anger, I reminded him that he must now learn to act like a man, whereas his brothers were but children. This had the desired effect; and as he discovered, on getting near the tent, that the body of the jackal was already becoming offensive, he was glad to lend a hand to drag it down to the sea.

As I saw no preparation for supper, I told Fritz to go and bring the ham, which had supplied our breakfast. My wife was no less surprised than gratified at the sight. "I am not altogether unprepared, however," said she, producing at the same time a basket containing about a dozen turtle eggs; "but I must reserve the narrative of our adventures," continued she, "till supper is over." While, therefore, she employed herself

in preparing a dish of ham and turtle-eggs, Fritz and I proceeded in unloading our cargo, assisted by the ass, which Ernest was glad to see was to be the chief bearer of our burdens in future.

When we returned, supper was ready. My wife had spread a table-cloth on the top of a cask, and there she had disposed a dish of ham in the centre, flanked by a tempting omelet, which the turtle-eggs had supplied, and on the other side a dish of toasted cheese. We now produced the knives, forks, plates and spoons, as well as the captain's silver service, which we had brought from the wreck, and our supper-table presented an appearance rarely seen on a desert island. We were soon surrounded by the two dogs, the fowls, and the pigeons, who seemed to demand a share of the good things. The sheep and goats had also gathered near; the geese and ducks were more independent, remaining in their marsh, where they lived in plenty on the small crabs which abounded there. After supper, I sent Fritz for a bottle of the captain's Canary wine, and then requested my wife to narrate her adventures during my absence.

CHAPTER VII.

THE SECOND VOYAGE OF DISCOVERY.

"THE morning you left," said my wife, "I was chiefly taken up with watching your progress and the signals which assured me of your safety; but this morning, being satisfied that all was going well, I sought, before the boys were yet up, a shady place to rest in, but in vain; I believe this barren shore has not a single tree on it. Then I began to consider on the necessity of searching for a more comfortable spot for our residence, and determined, after a slight repast, to set out with my children across the river, on a voyage of discovery. We took our game-bags and some hunting-knives; the boys carried provisions, and I had a large flask of water. I carefully secured the opening of the tent with the hooks. Turk went before, evidently considering himself our guide; and we crossed the river with some difficulty. Ernest and Jack each carried a gun in case of any sudden danger. As

we proceeded, I could not help feeling thankful that you had so early accustomed the boys to the use of fire-arms, as the defence of my youngest child and myself now depended on the boys of ten and twelve years of age.

"I so longed for the enjoyment of the shade of trees, after being thus scorched by the sun, that I directed our course towards a wood we had in view. The long grass and reeds, however, which were taller than the children's heads, rendered progress extremely difficult and harassing. As we were struggling along, we were all at once startled by a loud whirring noise, apparently at our feet, and at the same moment a bird of prodigious size rose from out the grass and flew away, before the boys could get their guns ready. They were much mortified, and I recommended them always to have their guns in readiness, for the birds would not be likely to wait till they loaded them. 'I am sure it was an eagle,' said Francis, 'it was so large;' but Ernest ridiculed the idea, and pronounced it to be a bustard. They were getting into hot discussion on the subject, when I observed to them, that if the bird had waited long enough for them to examine it, they would have had time to shoot it too. 'Let him only give us the same chance again,' cried Ernest, 'and we will have leisure enough, after I have shot him, to determine what he is.' He had scarcely finished his boastful speech, when, whirr! went another precisely like the first, though still larger, almost past his nose. The boys were so completely taken by surprise that they did not offer to present their guns, while I said to them jocosely, 'Such a famous pair of sportsmen as we have, we need not dread want so long as you are here to supply us with game.' Ernest was so mortified, that he looked as if ready to cry; but Jack good-humouredly took off his hat, and, making a low bow, said, 'Pray, Mr. Bird, be kind enough to pay us another visit, and see if we do not improve our better acquaintance.' We found the large nest they had left; it was rudely formed of dry grass, and empty, but some fragments of egg-shells were scattered near, as if the young had been recently hatched; we therefore concluded that they had escaped among the grass; but our own progress was too slow to render it probable that we should be able to catch them.

"Doctor Ernest immediately began a lecture. 'You ob-

serve, Francis, these birds could not be eagles, which do not form their nests on the ground. Neither do their young ones run as soon as they are hatched. These must be of the gallinaceous tribe, an order of birds such as quails, partridges, turkeys, &c. ; and from the sort of feathered moustache which I observed at the corner of the beak, I should say that these were bustards.'

"We soon reached the little wood, and our learned friend had sufficient employment in scrutinising, and endeavouring to classify, the immense number of birds, with gorgeous and extremely varied plumage, that flitted about the higher branches, apparently perfectly heedless of us. We found, however, that what we thought a wood was merely a group of ten or twelve trees, of a height far beyond any I had ever seen ; the trunks springing from roots which formed a series of supporting arches. Jack climbed up one of the singular stems to measure the main trunk with a string, and found that it was above thirty feet in circumference. I made thirty-two steps round the roots. Between the roots and the lowest branches it seemed about forty or fifty feet. The foliage is abundant, and the branches thick, so that it furnished a most agreeable shade, while underneath the whole area which it inclosed was carpeted with a short tender plant, growing very thick, and forming a most soft and pleasant sward ; and everything combined to render this one of the most delicious spots the mind could conceive. Here we rested, and made our noon-day repast ; a small stream was at hand to supply a refreshing draught. Our dogs soon joined us ; but to my surprise they lay down without craving for food. For myself, I was so enamoured of the spot, that it seemed to me, if we could only contrive a dwelling among the branches of one of these trees, we should be in perfect peace and safety, and in as delightful a spot as heart could desire.

"On our return we choose a path which soon led us to the sea shore. Here we found spars, casks, chests, and other articles which had floated from the wreck, but they were all too large for us to think of bringing them home. We contented ourselves, therefore, with dragging and rolling as many as we could beyond the reach of high water ; our dogs, in the meantime, fishing for crabs, with which they regaled

themselves, much to their own satisfaction and to mine, as I now saw they would be able to provide their own food. As we rested from our rough labour, I observed Bill turn up something in the sand, which he devoured with avidity. Ernest, who was nearest, pronounced them to be turtle's eggs. We drove away the dog, and collected about two dozen, leaving her the rest as a reward for her discovery.

"While we were carefully depositing this unexpected prize in the game-bags, we were astonished at the sight of a sail. I knew not what to think at first, but both Ernest and Jack were sure it must be you, and I soon became convinced that they were right. We crossed the river by leaping from stone to stone, and we arrived, as you know, in time to welcome you on your happy return."

Such was my wife's narrative of the day's adventures. I now began to rally her on the idea of establishing our quarters in a tree sixty feet high. "Would you have us roost," said I, "like fowls among the branches? And pray how do you propose that we should get up to our perch?" "Oh! you must remember," answered she, "the large lime-tree near our native town, in which was a ball-room. We used to ascend to it by a wooden staircase. Could you not contrive something of the sort in one of these gigantic trees, where we might sleep in peace, fearing neither jackals nor any other terrible nocturnal enemy?" I promised to consider this plan, hoping at least that we might make a commodious and shady dwelling among the roots. To-morrow we were to examine it. Fatigued as we all were with the labours of the day, we knelt together in prayer, and then retired to rest.

CHAPTER VIII.

BRIDGE BUILDING.

"Now, my dear Elizabeth," said I, waking early next morning, "let us talk a little on this grand project of changing our quarters. Does it not seem as if Providence had conducted us to the place where we now are? We are closed in on all sides by the river, the rocks, and the sea; while our vicinity to the wreck will enable us still further to enrich



"The dogs, dashing in among the herd, seized a young buffalo calf, and dragged it to the ground."—P. 111.

ourselves with its stores. Let us, therefore, have patience, and be content where we are for some time, at least till I have brought from the ship all that can possibly be of use to us."

"What you say may be all very well," replied my wife; "but I must first tell you that the heat in this sandy desert is altogether intolerable; while as to the safety which you prize so much, did it protect us from the jackals, or will it be any more effective in keeping away lions or tigers? And as to the treasures in the wreck, I renounce them with all my heart; for when you were away for the last two days on the sea, I was a prey to the most fearful apprehensions, and dreaded you might never return." "There is some truth in your objections," said I; "and perhaps we may erect a dwelling under the roots of your favourite tree; but among these rocks we must have a storehouse for our goods, and a retreat in case of invasion. With the facilities I have for blowing away some portion of the rock with powder, this place may be rendered an impregnable shelter. The first thing we must think of, with a view to our proposed emigration, is to construct a bridge across the river." "A bridge!" said she in a tone of vexation; "then when shall we get from here? Why cannot we ford it, as usual? The cow and ass could carry our stores."

I explained to her how necessary it was for our ammunition and provision to be conveyed over without risk of wetting, and begged her to manufacture sacks and baskets, and leave the bridge to me and my boys. If we succeeded, it would always be useful; the stream was, no doubt, liable to floods, and must, at certain seasons, become impassable by any other means; and, for fear of danger from lightning, or accident, I intended to make a powder-magazine among the rocks.

The important question was now decided. I called up my sons, and communicated our plans to them. They were greatly delighted, though somewhat alarmed at the formidable project of the bridge; besides, the delay was vexatious; they were all anxious for the removal into the Land of Promise, as they chose to call it.

As soon as morning prayers were over, we proceeded to

breakfast. The monkey sucked one of the goats as if it had been its mother. My wife milked the cow, and gave us boiled milk with biscuit for our breakfast, part of which she put in a flask for our refreshment during the day. We then prepared our boat for another expedition to the wreck, to procure planks and timber for our bridge. I took Ernest as well as Fritz with me, that we might accomplish our purpose with the less delay. We rowed vigorously till we got into the current, which soon carried us out of the bay. But we had scarcely arrived off a little island which lay to the left than we perceived a vast number of gulls and other sea-birds congregated about some object. Curious to know what could be the cause, I hoisted the sail in order to take advantage of a breath of wind which had sprung up. Fritz was the first to descry that the whole flock of birds were perched on the carcass of a huge fish, which had been cast ashore on the island. We brought the boat alongside, and, securing it to a large stone, we stepped on shore without disturbing the birds; so intent were they on their prey, we might have killed numbers, even with our sticks. This fish was the shark which Fritz had so skilfully shot through the head the night before. He found the marks of his two balls. Ernest drew his ramrod from his gun, and struck so vigorously right and left among the birds that he killed some and put the rest to flight. We then cut off some portions of the rough skin of the monster, which it had occurred to me might prove useful in various ways, and especially as a substitute for a file or rasp, owing to its extreme roughness. But this was not the only advantage we gained by landing; for I observed, to my great satisfaction, that a number of planks and spars were strewed along the shores, which were admirably adapted for my purpose, and would thus save us the trouble of going to the wreck. We selected as many as were suitable, and soon had them afloat. Our next care was to arrange them and bind them together into a raft, which we secured to the stern of the boat, and then, hoisting our sail, we turned its prow towards the shore. Thus, through this fortunate chance, we had accomplished in a couple of hours what I anticipated would have occupied us the whole day, and involved no slight amount of labour.

We soon reached our landing-place; and, securing our boat, and calling out loudly, we soon saw our friends running from the river; each carried a handkerchief filled with some



new acquisition, which they opened before us, displaying a store of crawfish, enough to furnish our table for several days. Little Francis was full of glee, telling me that it was he who had first discovered them; while Jack recounted his exertions with the net, and his courage in wading into the water to get them. I congratulated both on their zeal and success, and

assured them I would have great satisfaction in eating a dish of their providing. Jack related that Francis and he had set out to look for a proper place for the building of the bridge, when he suddenly called to his brother to observe that Fritz's jackal was covered with crabs. They added, that they could have secured many more had I not called them off just as they were gathering them. Their supply, however, was already more than sufficient; and I could not avoid reflecting with thankfulness that our lot had been cast where the means of subsistence was attainable with so moderate exertion. I commanded them to put the smaller ones back into the river, reserving only as many as we could eat.

I went to look at the place which had struck Jack's fancy as a site for the bridge. It was a very suitable one, but it was at a considerable distance from the nearest spot where it was possible to land the timber. Every day's experience, however, was rendering us more self-dependent. I called to mind the simple harness described as in use by the Laplanders with their reindeer. I tied cords to the horns of the cow—as the strength of this animal is in the head—and then fastened the other ends round the piece of timber we wanted moved. I placed a halter round the neck of the ass, and attached the cords to this. We were thus enabled, by degrees, to remove all our wood to the chosen spot, where the sides of the river were steep and appeared of equal height. It was necessary to know the breadth of the river, to select the proper planks; this Ernest ingeniously accomplished by tying a stone to the end of a ball of stout packthread, and throwing it across the river. We had thus at once a measure by which to determine the length of beams required. We found the breadth to be eighteen feet, and as it was necessary to allow sufficient additional length to the timbers to make the whole secure, we chose some beams twenty-four feet long. How we were to get these across the river was another question, which I proposed we should discuss during dinner, to which my wife now summoned us. Our dinner consisted of a dish of crawfish and some very good rice-milk. But before we began she called on us to inspect two sacks she had made for the ass, which, in the absence of large needles, she had contrived to stitch by using a sharp nail for an awl.

Notwithstanding her difficulties, she had succeeded in making very passable saddle-bags, which I failed not to commend as they deserved. We had no time, however, to spare for gossip, but despatched our meal in haste, and hurried back to our work.

After considering various plans for accomplishing our purpose, I secured the end of one of the long beams loosely to the trunk of a large tree, and then, attaching a long rope to the opposite extremity, I threw the loose end, by means of a stone, to the opposite bank of the stream, where we had previously fixed the block used in our boat, to a tree by the hook which usually suspended it. I passed my rope, and returning with the end to our own side, harnessed both the ass and the cow to it, and drove them rapidly from the shore. The device completely succeeded. The beam slowly rose into the air, turning round the trunk of the tree as a swivel, then advanced, and was finally lodged over the river, amidst the shouts of the boys, its own weight keeping it firm. Fritz and Jack, somewhat to my alarm, leaped on it immediately to run across.

The chief difficulty was now removed. Three other beams were laid across by the same process, and, with the ready help of my sons, arranged at a convenient distance from each other. We then laid down planks close together across the beams, but not fixed, as in time of danger it might be necessary rapidly to remove the bridge. My wife and I were as much excited as the children, and ran across with delight. Thoroughly fatigued with our day's labours, we were glad to retire to our tent, where, after offering up our thanks to God, we were speedily in the enjoyment of well-earned repose. ✓

CHAPTER IX.

A CHANGE OF RESIDENCE.

THE following morning my first thought was to warn the children of the necessity for caution and prudence in the journey we were now proposing, urging them not to wander from our side. We then prepared for departure. We assembled the cattle; the bags were fixed across the backs of the

cow and the ass, and loaded with all our heavy baggage; our cooking utensils and provisions, consisting of biscuits, butter, cheese, and portable soup, our hammocks and blankets, the captain's service of plate, were all carefully packed in the bags, equally poised on each side the animals. Having despatched a hasty breakfast, we were about to set out; but my wife remonstrated against leaving the fowls, even for a single night; above all, Francis must have a place; he could not possibly walk all the way. I accommodated the little fellow behind the hammocks on the ass's back; while the other boys set off in pursuit of the poultry and pigeons, from whence they returned without accomplishing anything else than putting themselves in ill-humour. Their mother laughed at them for their thoughtless folly, and, scattering a few handfuls of grain and crumbs of bread, she soon got the whole poultry and pigeons around her, and, decoying them by the same means into the tent, I closed it from the outside, and the whole, with wings and feet tied, were soon safe in two hampers on the other side of the donkey.

All our stores which we could not carry with us were now collected into the tent; and having secured it as carefully as we could, and arranged all the larger casks and chests, both full and empty, around it, we took our departure. Each of us carried a game-bag and a gun. My wife and her eldest son led the way; the cow and the ass, with its rider, followed them; the third division consisted of the goats, driven by Jack, the little monkey seated on the back of its nurse and grimacing, to our great amusement; next came Ernest with the sheep; and I followed as the rear-guard. Our gallant dogs acted as *aides-de-camp*, and were continually passing from the front to the rear-rank. Our march was slow, but orderly, and quite patriarchal. "We are now travelling across the deserts as our first fathers did," said I, "and as the Arabs, Tartars, and other nomade nations do to this day; but they have their camels and horses, while we must be content with our poor ass and cow. For my part, I hope this migration will be our last." My wife replied that our new destination, under the shade of her favourite trees, would amply repay all the toils of the journey. The sow had proved so mutinous, that, after one or two ineffectual



"Fritz, who was watching his opportunity, threw the noose, and the prize was ours."—P. 126.

attempts, we had given up the idea of bringing her off; but we were not long gone when she set off voluntarily in the same direction, testifying, however, by her short grunts, the extreme dissatisfaction with which she regarded our proceedings. New difficulties beset us as soon as the bridge was crossed; for the rich grass tempted our animals to stray, and all our orderly cavalcade was soon in total confusion. The dogs were now of the greatest use; and, when we were once more in some order, I directed the leader to take the way along the coast, so as to avoid the repetition of this disaster.

We had scarcely got fairly in motion again, when the dogs darted once more among the long grass, and presently a fierce barking and howling got up, as if they were engaged in combat. Fritz immediately prepared for action, Ernest drew near his mother, Jack rushed forward with his gun over his shoulder, and I cautiously advanced, desiring them to be discreet and cool; but Jack, with his usual impetuosity, leaped among the high grass to the dogs, and immediately returned, clapping his hands and crying out, "Be quick, papa!—a huge porcupine, with quills as long as my arm!" Relieved of my greatest apprehensions by this announcement, I soon reached the spot, and really found a porcupine, whom the dogs were warmly attacking. It made a frightful noise, erecting and darting its quills so suddenly that the blood already flowed from several wounds in the heads of the dogs, abundantly accounting for their fierce howling. Jack, however, had no idea of being an idle spectator in this unequal combat. Drawing a pistol from his belt, he discharged it directly into the head of the porcupine, which fell dead on the spot. Jack was very proud of his feat; while Fritz, by no means satisfied to be thus outdone by his little brother, commented with covert jealousy on the imprudence and rashness of his conduct, and asked with some acerbity if he did not see that he might have shot one of the dogs, or even one of us? Jack was by no means inclined to make any such acknowledgment, and words were running high between them, when I interfered, and rebuked the spirit which Fritz was giving way to, showing that, though Jack was perhaps a little imprudent, he had exerted himself courageously for the

common good, and urging on both to cultivate generous and brotherly feelings towards each other. Mamma was now summoned to see the curious animal her son's valour had destroyed. Her first thought was to dress the wounds made by the quills which had stuck in the noses of the dogs during their attack.

Jack earnestly desired to carry his booty with him; but even when dead we found it no easy matter to handle the porcupine; however, with the help of some bundles of soft grass with which I enveloped it, we got it removed, and placed it on the donkey behind Francis.

At last, we arrived at the end of our journey, and certainly the size of the trees surpassed anything I could have imagined. Jack had no doubt they were gigantic walnut-trees; for my own part, I believed them to be a species of fig-tree—probably the Antilles fig. I congratulated my wife on her discovery and judicious selection of this charming spot for our destined abode. "If we can only contrive to fix our tent," said I, "up among these branches, as you propose, we shall have little cause to dread the attack of any wild beast."

We released our animals from their loads, and let them graze, only taking the precaution to shackle their fore legs, so as to prevent them from wandering far; except the sow, who, as usual, took her own way. The fowls and pigeons were also restored to liberty, and left to their own discretion. While my wife and I were discussing the needful arrangements for our future habitation, we were suddenly startled by the report of a gun; but the next moment the voice of Fritz reassured us; he appeared with a large, beautiful tiger-cat which he had shot. "Bravo, my noble sportsman!" said I; "you have rendered good service to our fowls and pigeons; the foe you have just slain would have made an end of them in a single night. Wage an exterminating war with all such enemies, or we shall not long have a chicken left." Ernest then examined the animal with his customary attention, and declared that the proper name was the *margay*, a fact Fritz did not dispute, only requesting that Jack might not meddle with the skin, as he wished to preserve it for a belt. I recommended him to lose no time in skinning it, and give the flesh to the dogs. Jack, at the same time, determined to skin his porcupine to make dog-collars. Part of its flesh went into

the soup-kettle, and the rest was salted for the next day. We then sought for some flat stones in the bed of the charming little river that ran at a little distance from us, and set about constructing a cooking-place. Francis had, meanwhile, been industriously employed gathering dry sticks for a fire; and while my wife was occupied in preparing our supper, I amused myself by making some packing-needles for her rude work from the quills of the porcupine. These I readily perforated with a nail which I heated in the fire till the point was red hot, and then took hold of the head with a wet cloth. By this means a set of needles, of various sizes, were made in a very short time, to my wife's great satisfaction. I requested her, however, to be sparing in the use of our supply of twine and thread, as I had already thought of constructing a rope-ladder with which to reach the lower branches of the trees. These, however, were fully thirty feet from the ground; and neither my sons nor myself could throw a stone, to which I had fastened a cord, over one of the boughs. It was necessary to think of some other expedient. In the meantime, dinner was ready. The porcupine made excellent soup, and the flesh was well-tasted, though rather hard. My wife could not make up her mind to partake of it, but contented herself with a slice of ham and some cheese. As for the dogs, they made a hearty meal of the margay, the skin of which I assisted Fritz in stretching in the bed of the neighbouring rivulet, and securing it by means of large stones.

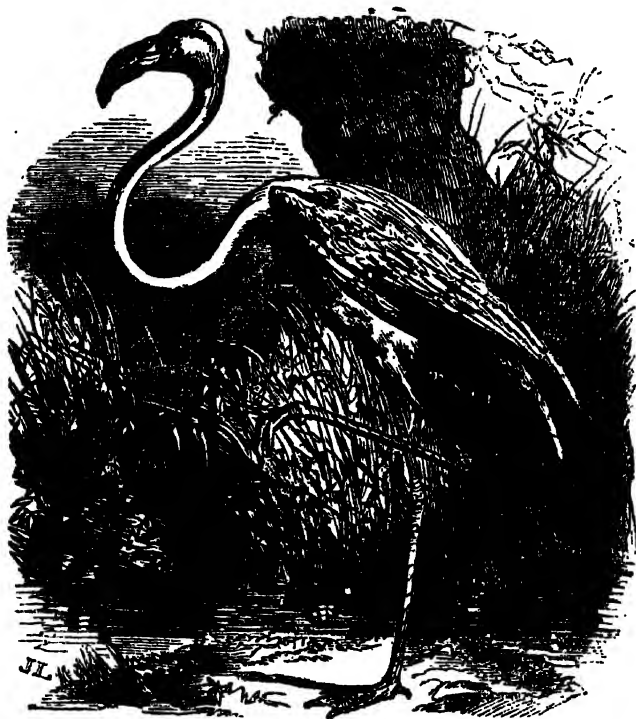
CHAPTER X.

ESTABLISHMENT UNDER THE GREAT TREE.

AFTER dinner, as I found we could not ascend at present, I suspended our hammocks under the arched roots of our tree, and, covering the whole with sail-cloth, we had a shelter from the dew and the insects.

While my wife was employed making harness for the cow and ass, I went with my sons to the shore, to look for wood fit for our use next day. We saw a great quantity of wreck, but none fit for our purpose; but Ernest directed my attention to a quantity of bamboos, half-buried in the sand, which,

when cleaned and stript of their leaves, proved admirably adapted for the steps of my ladder. I cut them in pieces of about four or five feet long, and then the boys bound them into bundles for carrying home. I secured some of the slender stalks with which to make arrows for a plan I had already conceived, and we then proceeded towards a thicket where I hoped to obtain some flexible boughs.



We approached with our wonted caution, for fear of any reptiles or other dangerous animals, allowing Bill to precede us. We had scarcely reached its outskirts when Bill made a sudden spring and darted among the long underwood, immediately after which a troop of flamingoes rose on the wing with a loud rustling sound. Fritz, always ready, fired at them. Two fell, one quite dead, the other, slightly wounded in the wing, made use of its long legs so well that it would have

escaped, if Bill had not seized it and held it till we came up to take possession. The joy of Fritz was extreme to have this beautiful creature alive. He thought at once of curing its wound, and domesticating it with our own poultry. "What splendid plumage!" said Ernest; "and you see he is web-footed like the goose, and has long legs like the stork; thus he can run as fast on land as he can swim in the water." "Yes," said I, "and fly as quickly in the air. These birds are remarkable for the power and strength of their wings. Few birds have so many advantages."

My boys occupied themselves in binding their captive and dressing his wounds, while I sought some of the canes which had done flowering, to cut off the hard ends, to point my arrows, as I knew is practised among the natives of the Antilles. I then selected the largest canes I could see, to assist me in measuring, by a geometrical process, the height of the tree. Ernest took the canes, I had the wounded flamingo, and Fritz carried his own game. Very loud were the cries of joy and astonishment at our approach. The children were delighted with the beautiful addition we had brought to our poultry; but my wife was uneasy, lest it should require more food than she could spare. However, I assured her our new guest would need no attention, as he would provide for himself at the river side, feeding on small fishes, worms, and insects. His wounds I dressed, and found they would soon be healed; I then tied him to a stake, near the river, by a cord long enough to allow him to fish at his pleasure, and in fact, in a few days, he learned to know us, and was quite domesticated. In the meantime, the boys had tied the two long canes together, and set about measuring the height of our large tree; but they soon came laughing, to report to me that I ought to have got them ten times as long to reach even the lowest branches. "There is a simpler mode than that," said I, "which geometry teaches us, and by which the highest mountains can be measured."

I then showed the method of measuring heights by triangles and imaginary lines, using canes of different lengths and cords instead of mathematical instruments; and I satisfactorily established the height of the lower branches to be thirty feet, a fact which I was desirous of ascertaining, with a view to the construction of a ladder of the necessary length.

I next desired Fritz to measure how much stout rope we possessed, and the little ones to collect all the small string, and wind it; while I sat down on the grass and proceeded to construct arrows of the canes I had gathered, filling them with wet sand to give them weight, and feathering them from the dead flamingo. I then made a bow of one of the strongest bamboos; and no sooner did the boys see me thus equipped with a bow and arrows than they crowded round me, shouting joyfully, "A bow! a bow and arrows! Do let me try it!—and me!—and me also!" "Have a little patience," said I in reply; "this is not made for mere amusement." I then obtained from my wife a ball of stout packthread, which her never-failing bag supplied. One end of the thread I secured to my arrow, and having unwound it, I shot off the arrow so that it passed over one of the stoutest of the lower branches and fell on the opposite side, carrying the thread with it. It was easy, by means of the thread, to draw a stout cord over the same bough, and having thus satisfactorily completed the preliminary steps, I now set about the construction of the ladder. Fritz had measured our ropes, and found two of forty feet each—exactly what I wanted. These I stretched on the ground at about one foot distance from each other; Fritz cut pieces of cane two feet long, which Ernest passed to me, and these I attached to the ropes by means of cords, with a space of about twelve inches between; and Jack completed their fastening by driving a stout nail through each, and into the rope, so as effectually to prevent them from shifting. In a very short time our ladder was completed; and, tying it to the end of the cord which went over the branch, we drew it up without difficulty. All the boys were anxious to ascend; but I chose Jack as the nimblest and lightest, and sent him up the tree; Fritz followed him with a hammer and nails, and secured the ladder so firmly to the branch that I had no hesitation in ascending myself, having first attached its lower end to stakes, firmly driven into the ground. I carried with me a large pulley fixed to the end of a rope, which I attached to a branch above us, to enable us to raise the planks necessary to form the ground-work of our habitation. I smoothed the bough with my axe so as to prevent the fraying of the ropes, sending the boys down to be out of my way. A clear moonlight had enabled me to prolong my labours to a much



"Jack suddenly shouted, 'Papa, papa! I have got through!'"—P. 140.

later hour than usual, but I was now completely worn out, and descended with the intention of immediately retiring to rest. Great was my surprise on reaching the ground to find that the boys whom I had sent down before me had not been there. I was totally at a loss what to imagine; but all anxiety was at once dispelled by their voices being heard at that moment singing the evening hymn on one of the topmost boughs. They had slipped up the tree instead of descending, while I was too busy to observe them, and, filled with wonder and reverence at the sublime view below them, had burst out into the hymn of thanksgiving to God. I did not deem it necessary to make any very serious complaint when they soon after descended, but directed them to assemble the animals, and to collect wood, to keep up fires during the night, in order to drive away any wild beasts that might be near.

My wife then displayed her work—complete harness for our two beasts of burden. Supper was now ready, one piece of the porcupine was roasted by the fire, smelling deliciously another piece formed a rich soup; a cloth was spread on the turf; the ham, cheese, butter, and biscuits, were placed upon it. Our supper done, my wife drew the poultry together by scattering crumbs and grains so as to accustom them to the spot. We soon saw the pigeons fly to roost on the higher branches of the trees, while the fowls perched on the ladder; the beasts were tied to the roots among which our hammocks were suspended. Some objections were expressed by the boys to the discomfort of these beds after the pleasant cushion of moss on which we had been sleeping; but I ridiculed such effeminacy, and it was abundantly obvious by the looks of all that they were already too sleepy to be very difficult to satisfy. We had gathered several heaps of faggots and dry grass so as to form a circle around us. These we lighted as watch-fires, and soon all were sound asleep except myself, kept awake by anxiety for the safety of the rest.

CHAPTER XL.

ENCAMPMENT UNDER THE GREAT TREE.

My mind was too much pre-occupied with anxieties for the others to permit me to sleep till near dawn. By degrees, however, I became more composed and free from apprehension, and at length fell into a sound sleep, from which I rose refreshed, and we were soon all busy at work. My wife, after milking the cow and goats, harnessed the cow and ass, and set out with Ernest, Jack, and Francis, to bring home a supply of drift-wood from the shore. In the meantime, I mounted the ladder with Fritz, and we set to work stoutly, with axe and saw, to rid ourselves of all useless branches. Some, about six feet above our foundation, we left, to suspend our hammocks from, and others, a little higher, to support the roof, which, at present, was to be merely sail-cloth. My wife succeeded in collecting us some boards and planks, which, with her assistance, and the aid of the pulley, we hoisted up. We then arranged them on the level branches close to each other, in such a manner as to form a smooth and solid floor; and we made a sort of parapet round, to prevent accidents; the sail-cloth was raised over the high branches, forming a roof; and, being brought down on each side, was nailed to the parapet. The immense trunk protected the back of our apartment, and the front was open to admit the breeze from the sea, which was visible from this elevation. We hoisted our hammocks and blankets by the pulley, and suspended them; we then descended, and some portion of the day being still before us, we set about constructing a table and some benches from the remainder of our wood, which we fixed between the large roots of the tree, henceforward to be our dining-room. The younger boys collected the chips for fire-wood; while their mamma prepared supper, which we stood in need of.

Exhausted with a hard day's work, I threw myself at length on the grass, while my wife proceeded to dish a very comfortable stew, which she had prepared for us from the flamingo shot the previous day. Its companion seemed already becoming familiarised with us, while our little monkey leaped from

one to another, mimicking all our gestures, and furnishing us with an endless source of amusement. The poultry, we were also glad to see, were still inclined to stay by us. To augment our satisfaction, our great sow, who had deserted us for two days, returned of her own accord, grunting her joy at our re-



union. My wife welcomed her with particular distinction, treating her with all the milk we had to spare; for, as she had no dairy utensils to make cheese or butter, it was best thus to dispose of our superfluity. I promised her, on our next voyage to the ship, to procure all these necessaries. This she could not, however, hear of without shuddering.

The boys now lighted the fires for the night. Our two dogs were secured to the roots of the tree as a protection against invaders, and we commenced our ascent. The labours

of the day had been amply sufficient to make us welcome the hour of rest. The three boys mounted, one after the other, the moment the word was given. Their mother took it with more deliberation, and cautiously guarding each step, at length landed for the first time on the aerie dwelling which had originated in her own suggestion. My own ascent was the last and most difficult; as, besides having little Francis on my back, I had detached the lower part of the ladder from the roots, in order to admit of its being drawn up after me, so that it swung about very unpleasantly, greatly adding to the difficulty of this novel approach to our new dwelling. I got up, however, safely at last, and, having drawn the ladder after me, we all felt a sense of security, which amply repaid us for the labour we had expended. I deemed it, however, advisable to lay our guns within reach, and having thus provided against every danger, we were soon asleep, and did not wake till the sun shone brightly in upon us.

CHAPTER XII.

THE FIRST SABBATH.

NEXT morning, all awoke in good spirits; I told them that on this, the Lord's day, we would do no work. We descended by means of our ladder; and, while I proceeded with the boys to provide the animals with needful food, my wife prepared our breakfast of biscuits and warm milk. This done, my children and their mother seated themselves on the grass, while I occupied a slight eminence before them; and, having sung a part of the 119th Psalm, with which the boys were all familiar, I repeated the church service of the day, after which I sought to interest and instruct them by means of the following allegory:—

“There was once on a time a Great King, who had two vast possessions, the one known as the Kingdom of Light and Reality, because unceasing activity and constant light prevailed there; the other, situated on its northern frontiers, in the regions of ice and snow, and of which the sovereign alone knew the extent. The latter was called the Kingdom of Indolence and Night, because everything in it was inactive and dark.

"The inhabitants of the first kingdom lived in the enjoyment of uninterrupted felicity. The King held his court at a magnificent city, called the Heavenly Rest, where thousands of happy attendants waited to do his bidding, clothed in garments more beautiful than the rainbow, and purer than the snow—for white was the colour of the Great King, as the emblem of purity. There were many degrees among them, but all were united together in the unchanging bonds of affection and sincerity, and none could conceive of a higher gratification than to be employed in the service of their royal master.

"Not far from the frontiers, the Great King possessed a desert island, which he desired to people and cultivate, in order to make it, for a time, the abode of those of his subjects whom he intended to admit, by degrees, into his Heavenly City, a favour he wished to bestow on the greatest number possible. This island was called Earthly Abode; and he who passed some time there worthily was to be received into all the happiness of the heavenly city. To attain this, the Great King equipped a fleet to transport the colonists, whom he chose from the kingdom of Night, to this island. Once arrived there, the benevolent sovereign bestowed upon them everything which he conceived calculated to insure their happiness. Admitted as they were to the enjoyment of light, and all the natural beauties which the newly-peopled island possessed, the colonists could not but contrast with joy the change from their former dull and gloomy abode. He further gave to each of them the promise that this island was to be only a probationary stage, and that all who fulfilled their duties as colonists, cultivated their new lands, and acted in implicit obedience to the laws he had appointed, should be admitted to the full privileges of citizens of the Heavenly Rest so soon as their period of probation had expired. In order the more effectually to carry out his plans, the King appointed his son to be the governor of the new colony, he having assembled them all, and set forth to them the obligations they were required to fulfil, as well as the penalties in case of neglect and disobedience, including for the idle, the contemptuous, and the wicked, the condemnation to perpetual slavery and banishment to labour in gloomy subterranean mines. The prince, moreover, told them that ships would be sent from time to

time to bring off such as merited translation to the Kingdom of Light.

"All declared themselves delighted with the terms on which they were to be governed and admitted to higher privileges. But no sooner were they fairly established than each did as he pleased, following only the dictates of his own pleasure, planting wild fruits which pleased the eye, rather than the useful seeds given them to sow and reap, and in all things consulting their ease, sloth, or self-will. A few laboured with courage, as they had been taught, rejoicing in the hope of the promise given them.

"The Great King was faithful to his word. From time to time frigates arrived, bearing the name of some disease. These were followed by a large vessel called *The Grave*, bearing the flag of the Admiral *Death*. This flag was of two colours, green and black; and appeared to the colonists, according to their state, the smiling colour of *Hope*, or the gloomy hue of *Despair*. These vessels always arrived unexpectedly, and were usually unwelcome. The officers were sent out by the admiral to seize those he pointed out; many who were unwilling were compelled to go; and others, whose land was prepared, and even the harvest ripening, were summoned: but these went joyfully, sure that they went to happiness. So soon as the colonists arrived, the Great King awarded the punishments and recompenses. Excuses were now too late; the negligent were sent to labour in the dark mines, while the faithful were received into their glorious abodes of happiness."

Such was the paralbe by means of which I sought at once to amuse and to instruct my family. I then proceeded to question my sons as to the ideas it had suggested to them, and drew them into various remarks on the ingratitude and folly of those people who despised the laws of so good a king, and disbelieved alike his promises and his threats; and after we had united together in singing a hymn, I could not avoid expressing to my wife my sorrow that, in all my eagerness to recover what was valuable from the wreck, I had never thought of the Bible. "What would you say," said she smiling, "if that also was to be found in this never-failing bag of mine?" and, suiting the action to the word, she put in her hand and drew forth a copy of the Holy Scriptures,



"It seemed as if the walls and roof of the cavern were set with diamonds, which sparkled under the light of our tapers as if the whole were an illuminated temple."—P. 143.

from which I selected such passages as applied to our situation. I then handed the book to one of the boys, and desired them to read a portion successively aloud, after which I once more engaged in prayer, and besought a blessing on us all, and on the services in which we had been employed. I was gratified to observe the solemn impression produced on the children's



minds by this mode of occupying the morning of the Sabbath. Throughout the day we abstained from all unnecessary work; and though the two youngest boys employed themselves in innocent recreations suited to their age, the day passed without any unbecoming neglect of the Sabbath.

The next morning, Ernest had used my bow very skilfully, which I had given him, bringing down some dozens of small birds, a sort of ortolan, from the branches of our tree, where they assembled to feed on the figs. This induced them all to

wish for such a weapon. I was well pleased to encourage them in the use of an instrument which might hereafter become indispensable to our existence. Our supply of powder, I reflected, must become exhausted, and might, indeed, by some unforeseen accident, be destroyed in a moment. It was, therefore, of the utmost importance that we should be independent of it, and acquire a means both of supplying our table and defending ourselves from enemies. "And why," thought I, "since the Caribs are trained in the use of the bow almost from their infancy, so that they learn to take unerring aim, even at the smallest birds, may it not be possible to train my children also to a little skill and dexterity?" My commendation of Ernest's skill added to the anxiety of the boys to be equipped in a like manner, and I accordingly persevered till I had furnished Ernest and Jack with a quiver to contain a supply of arrows, and a good flexible bow. Fritz was the only one who seemed to watch my progress with indifference. He was engaged in preparing the skin of the margay; and, as soon as I had set the rest to work with their bows and arrows, I showed him how to clean it, by rubbing it with sand in the river, till no vestige of fat or flesh was left, and then applying butter to render it flexible.

These employments filled up the morning; the dinner hour drew on before we were aware. The boys had already used their novel weapons with such dexterity that we found a dish of wild pigeons cooked for us. I gave them leave to kill as many ortolans as they chose, for I knew that, half roasted, and put into casks, covered with butter, they would keep for a length of time, and prove an invaluable resource in time of need. As I continued my work, making arrows and a bow for Francis, I intimated to my wife that the figs which had attracted the wild pigeons to the trees would probably prove no less acceptable to our own poultry, and thus enable her to husband our supply of grain. This was a great satisfaction to her. And thus another day passed, and we mounted to our dormitory to taste the sweet slumber that follows a day of toil.

CHAPTER XIII.

TOPOGRAPHY.

ERNEST and Jack resumed their bows and arrows on the following morning, and practised the novel weapons with undiminished ardour, while little Francis was impatient to be similarly equipped for the chase. Having finished a bow for him, his next demand was for a quiver to hold his arrows. The delicate bark of a tree, united with glue, obtained from our portable soup, formed an admirable quiver; this I suspended by a string round the neck of my boy, and sent him off, delighted, to try his skill along with his brothers.

As we were sitting together, after dinner, I proposed that we should give names to all the parts of our island known to us, in order that, by a pleasing delusion, we might fancy ourselves in an inhabited country. It would not only take away from us, in some degree, the feeling of being occupants of a strange land, but it would also be convenient for us in referring to places. The idea met with the liveliest approbation from all, and all were eager to suggest the titles for our new possessions. "It will be well," said I, "to designate each by the special events associated with it since our arrival, so as to fix the names more readily in our memory." To this all agreed, and, having thus arranged our preliminaries, I called on Fritz to begin by suggesting a name for the bay where we landed.

"*The Bay of Oysters!*" said he, "as we found them there in such abundance." "Oh, no!" said Jack, "let it be *Lobster Bay*, since it was there that one of them caught me by the leg." "My advice," said my wife, "is that, in gratitude to God, we should name it *Safety Bay*." We were all pleased with this name, which was forthwith adopted.

"What shall be the name of the spot where our first dwelling was reared?" was my next question. Fritz suggested the name of *Tent House*. "Very good," said I; "and the island at the mouth of *Safety Bay*?" *Shark Island* was acknowledged by all as the fittest name. *Flamingo Marsh*, in like manner, commemorated the spot where we had cut our arrows. The promontory from whence Fritz and I had looked in vain for any traces of our shipmates was designated *Cape*

X

Disappointment. *Porcupine Plain* marked the level ground between the river and our dwelling, where Jack had interfered to such good purpose. The stream itself was called *Jackal River*, and the bridge *Family Bridge*. The most difficult point was, to name our present abode. At last we agreed on the name of *Falcon's Nest*. This was received with acclamations, and I poured out for my young nestlings each a glass of sweet wine, to drink prosperity to Falcon's Nest. We thus completed for the present the geographical nomenclature of our little kingdom.

When the heat of the day was over, I proposed that we should for once have a ramble together. My sons had returned to their occupation as tanners—Fritz to complete his belt, and Jack to make a sort of cuirass, of the formidable skin of the porcupine, as an armour for Turk. My proposition was immediately welcomed with delight. All threw down their work, and made ready to join me. But as in our present state it was desirable to combine utility with pastime, it was decided to go to Tent House to renew our supplies of ammunition and provisions, and, if possible, to bring away the geese and ducks with us to the vicinity of our new dwelling, where there was a stream abundantly large, and otherwise well suited to their habits. We chose the road leading to the rocks higher up the river, in preference to that by the coast, as it gave us the advantage of a pleasantly-shaded road, while we would find the bridge an advantage in returning with our supplies. We set out; Fritz decorated with his beautiful belt of skin; Jack also appeared with a pair of pistols stuck in his belt; nor did little Francis forget his bow and arrows, while the others carried each a gun and game-bag. My wife carried a large jar, which she intended to fill with a supply of butter. Turk walked before us, with his coat of mail, and Bill followed, keeping at a respectful distance from him for fear of the darts. *Knips*, as my boys called the monkey, leaped on his back as usual; but the reception he met with there made him speedily jump off, chattering and grinning with pain. He soon discovered, however, that Bill was free from any such source of discomfort, and, mounting on his back, converted him into his palfrey for the journey.

The banks of the river afforded us a charming walk. For

a time we pursued our route under the shade of the trees ; the boys ran about to the right and left, frequently getting entirely out of sight, until we reached the end of the wood. Here I thought it prudent to summon them together ; but before I had time to call them, the whole appeared running



towards me at their utmost speed. Ernest was the foremost, and so soon as he recovered his breath, he presented me with three little apples of a green colour, exclaiming at the same time exultingly, "Potatoes ! Papa, we have found potatoes !" The other boys followed, equally eager to announce "their discovery. I was slow to believe in the certainty of so providential a discovery ; but my wife said at once, "Come, let us not waste time discussing the probability of it when we can ascertain at once if it be true." We hastened to the spot, and saw, with a degree of joy which it is difficult fully to express, a large area covered with plants which we could no

longer doubt were those of the potato. "Well," said Jack, "if Ernest's superior knowledge discovered them, I will be the first to supply you with potatoes;" and he accordingly set to work with such zeal that we had soon a bag of fine ripe potatoes, which we carried on to Tent House.

We had been much delighted with the new and lovely scenery of our road: the prickly cactus, and aloe, with its white flowers; the Indian fig; the white and yellow jasmine; the fragrant vanilla, throwing round its graceful festoons. Above all, the regal pine-apple grew in profusion, and we feasted on it, for the first time, with avidity. Among the rich cactus plants and the prickly aloes, I perceived a plant with large pointed leaves, which I knew to be the *karata*. It is a plant with beautiful red flowers; the leaves are an excellent application to wounds; thread is made from its filaments, and the pith supplies an excellent tinder. The latter seemed to the boys by far the most valuable discovery, and indeed of much more importance than that of the potatoes. "The plant will at least prove a very useful one," said I, "since it will furnish your mother with the means of supplying her bag anew with one needful portion of its contents when the present store is exhausted." My wife was greatly delighted with the discovery. She had already felt some anxiety about the exhaustion of her useful little store, which, notwithstanding all her care, she could not hope would last long; and she told the boys that she valued this unfailing source for the supply of so useful an article more than the most valued luxuries they could find for the table. "How happy it is for us," said she, "that you have devoted yourself to reading and study. In our ignorance we might have passed this treasure, without suspecting its value. But," continued she, "I fear it will prove a very difficult operation to extract thread from this prickly leaf." "Not at all," said I, "we have nothing to do but to dry the leaf, either in the sun, or more rapidly before the fire. We shall then be able easily to separate the fibres from their covering."

Fritz remarked that this plant might indeed be of value. "But of what possible use," said he, "can these prickly shrubs and plants be that grow in such profusion around us?" "Of much," said I. "Many of these furnish the chief medicines employed in Europe; others are useful in the arts or in

manufactures. The Indian fig, for instance, is a most interesting tree. It grows in the most arid soil. The fruit is said to be sweet and wholesome."

In a moment, my little active Jack was climbing the rocks to gather some of these figs; but he had not remarked that they were covered with thousands of slender thorns, finer than the finest needles, which terribly wounded his fingers. He returned, weeping bitterly and dancing with pain. Having rallied him a little for his greediness, I extracted the thorns, and then showed him how to open the fruit, by first cutting off the pointed end as it lay on the ground; into this I fixed a piece of stick, and then pared it with my knife. The novelty of the expedient recommended it, and they were soon all engaged eating the fruit, which they declared was very good.

In the meantime, I saw Ernest examining one of the figs very attentively. "Oh, papa," said he, "what a singular sight! The fig is covered with a small red insect. I cannot shake them off. Can they be the cochineal?" I recognised at once the precious insect, of which I explained to my sons the nature and use. "It is with this insect," said I, "that the beautiful and rich scarlet dye is made. It is found in America, and the Europeans give its weight in gold for it."

Thus discoursing on the wonders of nature and the necessity of increasing our knowledge by observation and study, we arrived at Tent House, and found it in the same state as we left it. We set to work immediately to collect necessaries. I opened the butter-cask, and my wife and little Francis filled the pot; Fritz collected the needful supply of powder and shot; while Ernest and Jack set off to capture the geese and ducks, but they had become so wild that it would have been impossible if Ernest had not thought of an expedient. Tying a bit of cheese to a long string, he threw it into the water, where it floated, and it was greedily gobbled up by the voracious birds. As he retained a hold of the other-end of the line, he was thus enabled to draw them all successively to land; and, after securing their legs and wings, he cut off the string close to the beak, leaving them to digest the remainder with the cheese.

We presented a somewhat grotesque cavalcade on our return. The potato-bags were laid across the backs of the

two dogs, and the geese and ducks distributed among the party. They proved a very noisy as well as burdensome load; but we reached our dwellings under the great trees at last, wearied indeed, but still in good humour, and well pleased with the fruits of our day's ramble. My wife soon had her pot of potatoes on the fire. She then milked the cow and goat, while I set the fowls at liberty on the banks of the river. Our potatoes, along with a cup of milk, supplied us with a new and very acceptable supper; and we then sought our repose among the leaves.

CHAPTER XIV.

THE SLEDGE.

I HAD remarked, as we came along the shore the previous evening, among various other things cast up by the waves, different pieces of wood which appeared to me well suited for making a sledge to convey our casks and heavy stores from Tent House to Falcon's Nest. At dawn of day I woke Ernest, whose inclination to indolence I wished to overcome, and leaving the rest asleep, we descended, and, harnessing the ass to a strong branch of a tree that was lying near, we proceeded to the shore. I had no difficulty in selecting proper pieces of wood; we sawed them the right length, tied them together, and laid them across the bough, which the patient animal drew very contentedly. We added to the load a small chest we discovered half-buried in the sand, and we returned homewards, Ernest leading the ass, and I assisted by raising the load with a long pole, which I used as a lever when we met with any obstruction. My wife, who had felt some anxiety at our absence, was well pleased to see us return, and all were curious to ascertain what the box contained. I opened it, and found only some clothes of linen, wet with seawater, but still of value to us, as our supplies in this respect were extremely limited. In my absence, the boys had busied themselves shooting the wild pigeons; they had killed about fifty, but had consumed so much powder and shot, that I checked a prodigality so imprudent in our situation. I taught them to make snares for the birds of the threads we

drew from the karata leaves we had brought home. This novel task had great attractions for the boys; and I set Jack to work, with little Francis for his assistant, while I, with my two elder boys, began to construct the sledge. As we were working, we heard a great noise among the fowls, and Ernest, looking about, discovered the monkey seizing and hiding the eggs from the nests; he had collected a good store in a hole among the roots, which Ernest carried to his mother; and Knips was punished by being tied up every morning till the eggs were collected.

On returning to dinner, we learned from Jack that he had been up in the tree during the forenoon, fastening his snares, and had discovered that the pigeons were making nests. This furnished me with an additional reason for forbidding all firing in future in the trees; and I further warned the boys to watch lest any of our own pigeons should get entangled in the snares.

By persevering application to our task, we contrived to finish a very practicable sledge. Two long curved planks of wood, crossed by three pieces, at a distance from each other, formed the simple conveyance. The fore and hind parts were in the form of horns, to keep the load from falling off. Two ropes were fastened to the front, and my sledge was complete. The sight of it afforded my wife great delight, and she was impatient that I should set out for Tent House without delay. She had formed the project of preserving the wild pigeons shot by the boys, as a provision for the period of the year which we necessarily looked forward to when such supplies would fail us, and required the cask of butter, as well as other stores, for the purpose. To this I had no objection; and accordingly, leaving Fritz in charge of the family, I once more selected Ernest as my companion, and, yoking the ass and cow to the sledge, we set off to our store-house.

When we were departing, Fritz presented each of us with a little case he had made from the skin of the margay. They were ingeniously contrived to contain knife, fork, and spoon, and a small hatchet. Thus equipped, and with Bill as our guard, we set off along the shore, and soon crossed by Family Bridge to the store-house. After unharnessing the animals, we began to load. We took the cask of butter, the cheese,

and the biscuit, all the rest of our utensils, powder, shot, and Turk's armour, which we had left there. We were so completely engrossed by our work that we did not perceive, till it was finished, that the animals had strayed across the bridge, attracted by the abundance of fine grass on the other side of the river, and were now out of sight. I despatched Ernest with Bill to bring them back; and, as I had no doubt of his speedy success, I employed the interval in refreshing myself with a bath in the sea. At the extremity of Safety Bay, I discovered a marsh in which a quantity of fine bulrushes were growing, and occupied myself in cutting them. When Ernest had brought back our wanderers, he removed the first planks from the bridge, and by this simple means effectually prevented their again straying beyond our reach. I desired him also to fill a small bag with the salt which he had formerly noticed in the crevices of the rocks. He had not been absent long, when I heard him cry out, "Papa! papa!—a huge fish! I cannot hold it; it will break my line." I ran to his assistance, and found him hauling at a line to which an enormous salmon was attached, that had nearly pulled him into the water. I let it have a little more line, then drew it gently into a shallow, and secured it. It appeared about fifteen pounds weight; and we pleased ourselves with the idea of presenting this to our provident housekeeper. Ernest had formerly observed that the fish frequented this part of the coast, and accordingly brought his line with him; he had taken about a dozen small fishes, which he had in his handkerchief, before he was overpowered by the salmon. I cut the fishes open, and rubbed the inside with salt to preserve them; then placing them in a small box on the sledge, and adding our bags of salt, we harnessed our animals, and set off homewards.

When we were about half-way, Bill left us, and, by her barking, raised a singular animal, which seemed to leap rather than run. The irregular bounds of the animal disconcerted my aim, and, though very near, I missed it. Ernest was more fortunate; he fired at it and killed it. It was about the size of a sheep, with the tail of a tiger; its head and skin resembled those of a mouse; its forelegs were like those of a squirrel, while its hind legs seemed disproportionately large, like a pair of great stilts. After Ernest's

pride of victory was a little subdued, he fell back on his science, and began to examine his spoil. I was at a loss at first to conceive what it could possibly be; but Ernest began recalling his reminiscences in natural history, and it presently occurred to me that the strange animal we had secured could be none other than the kangaroo. Ernest was anxious to preserve the skin unhurt, so I tied the four feet together, and, passing a stick through between them, we carried it in this manner to the sledge. It formed a weighty addition to the load; but, by proceeding slowly, and rendering assistance when any unusual impediment occurred, we got along without much difficulty, and reached Falcon's Nest at a somewhat late hour.

We had heard the voices of the boys sometime before we got sight of them; but they were soon around us, inquiring after our success. The fish was received by my dear wife with much satisfaction. The butter, cheese, and biscuits were no less acceptable; but the grand object of curiosity was the kangaroo. Fritz displayed a little jealousy, but soon surmounted it by an exertion of his nobler feelings, and only the keen eye of a father could have discovered it. He congratulated Ernest warmly, but could not help begging to accompany me next time. "I promise you that," said I, "as a reward for the conquest you have achieved over your jealousy of your brother; but, remember, I could not have given you a greater proof of my confidence than in leaving you to protect your mother and brothers. A noble mind finds its purest joy in the accomplishment of its duty, and to that willingly sacrifices its inclination. But," said I, "tomorrow you shall be my companion, when I propose another voyage to the wreck."

Our ordinary occupations terminated the labours of the day. I fed the tired animals, giving them some salt with their grass, a great treat to them. We then prepared and hung up the kangaroo, designing to salt and smoke such parts of it as we could not immediately consume. Our supper done, we concluded the day with our wonted services, and then thankfully withdrew to our hammocks, and were speedily asleep.

CHAPTER XV.

FRESH SUPPLIES FROM THE WRECK.

I ROSE early, and descended the ladder, a little uneasy about our kangaroo, and found I was but just in time to save



it from the dogs. They had so enjoyed their repast on the entrails which I had given them the night before, that they had apparently agreed together to breakfast on the remainder. They had succeeded in tearing off the head, which was in

their reach, and were devouring it in a sort of growling partnership. As we could not afford to have our watchmen turn robbers on our hands, I seized a stout cane and gave both the dogs so sound a beating that the noise they made awoke my wife, and brought her down to ascertain the cause.

Without loss of time, I commenced to strip the kangaroo of his elegant skin, and washing myself, and changing my dress after this unpleasant operation, I joined my family at breakfast. I then announced my plan of visiting the vessel, and ordered Fritz to make preparations. My wife resigned herself mournfully to the necessity. When we were ready to depart, Ernest and Jack were not to be found; their mother suspected they had gone to get potatoes, an idea which somewhat relieved my mind. I charged her, however, • to reprimand them on their return for going off on such an adventure without our leave. We set out towards Tent House, leaving Bill to protect the household, and taking Turk along with us.

We had proceeded without interruption almost to Jackal River, when all at once, to our great astonishment, Ernest and Jack leaped out of a thicket with a shout of delight, and announced their intention of accompanying us, which they conceived they had secured by this stratagem. Their joy was so great that I could not express all the disapprobation I had intended. I reproved, them, however, and ordered their immediate return home. I was glad of the opportunity this gave me of sending back a message, and I accordingly charged them to tell their mother not to be uneasy if we did not return till the following day; a thing I had not had the courage to tell her at our parting. • The boys looked sadly mortified and disappointed at their dismissal; but I begged of them to consider the uneasiness that their mother must experience if they did not appear at the dinner hour; and the better to secure their attention to this, I requested Fritz to give his silver watch to Ernest, as I knew we could replace it when we reached the ship. The novelty of the watch served to reconcile the boys in some degree to their disappointment, and we proceeded towards the bay. We lost no time in embarking, and, with the help of the current, were soon alongside the wreck.

My first care was to construct some more convenient trans-

port vessel than our boat. Fritz proposed a raft. We soon found a number of water casks, which we emptied and closed again, and threw a dozen of them into the sea between the ship and our boat. Some long planks were laid on them and secured with ropes; we next constructed a parapet all round, and thus had a solid raft, capable of effecting in a single voyage more than we could have hoped to do in many successive trips with our first boat. This work occupied us the whole day, scarcely interrupted by eating a little cold meat from our game bags. Exhausted by fatigue, we were glad to retire to rest in the captain's cabin on an elastic mattress, of which our hammocks had made us forget the comfort. Early next morning we began to load our raft.

We commenced by completely stripping the cabin, taking away even the doors and windows. Two of the officers' chests proved a great prize; but that of the carpenter afforded us the greatest satisfaction. One case, on being opened, was found to contain a valuable assortment of jewellery, snuff-boxes, and money, which at first tempted us, but were speedily relinquished for objects of real utility; we were much better pleased to discover a package inclosing a variety of plants of European fruit-trees, carefully packed in moss. Among these I recognised to my delight the pear, the apple, the peach, the apricot, the plum, and also some slips of the vine. I looked upon them as old friends, familiar to me in my dear native land, and rejoiced in the prospect of being able to rear them in this strange country, and around our new home. We secured some bars of iron and pigs of lead, grindstones, cart-wheels ready for mounting, tongs, shovels, ploughshares, packets of copper and iron wire, sacks of maize, peas, oats, and vetches, and even a small handmill. The vessel had been laden with everything likely to be useful in a new colony. We found a saw-mill in pieces, but marked, so that it could be easily put together. It was difficult to select, but we took as much as was safe on the raft, adding a large fishing-net and the ship's compass. Fritz begged to take the harpoons, which he hung by the ropes over the bow of our boat, and I indulged his fancy. We were now loaded as far as prudence would allow us, so, attaching our raft firmly to the boat, we hoisted our sail, and made for the shore. The wind was favourable and the sea calm, so that we advanced at a good rate.



"We possessed a tolerably respectable library, which embraced collections of voyages, travels, etc."—P. 161.

Fritz had been some time regarding a large object in the water, and asked me to steer in that direction, that he might see what it was. I soon recognised it to be a large tortoise floating asleep in the sun, and complied with his request; but the next instant I felt as if the boat had received a sudden shock, which was followed by its apparently receiving a considerable impulse. "We are going to founder!" cried I. "What is the matter?" "I have caught it," shouted Fritz; "I have harpooned it in the neck. It will not escape us." I saw the harpoon shining at a distance, and the turtle was rapidly drawing us along by the line. I lowered the sail, and rushed forward to cut the line; but Fritz besought me not to do it. He assured me there was no danger, and that he himself would release us if necessary. I reluctantly consented, and saw our whole convoy drawn by an animal whose agony increased its strength. As we drew near the shore, I endeavoured to steer so that we might not strike and be captured. I saw, after a few minutes, that our conductor again wanted to make out to sea. The wind being in our favour, I hoisted the sail, so that we were able, by its means, to drag the exhausted animal after us till the water was sufficiently shallow to admit of my wading, when I got out and decapitated it with my axe.

Fritz set up a shout of triumph, and fired off his gun to announce our arrival. All came running to greet us, and great was their surprise, not only at the value of our cargo, but at the strange mode by which it had been brought into harbour. My first care was to send them for the sledge, to remove some of our new acquisitions without delay; and, as the ebbing tide was leaving our vessels almost dry on the sand, I profited by the opportunity to secure them. When my wife returned with the sledge, we placed the turtle with some difficulty on it, as it weighed at least three hundred weight. We added some lighter articles; the mattresses, some small chests, &c., and then joyfully set off for Falcon's Nest. As we walked on, Fritz told them about the boxes of jewellery and trinkets we had left behind us. All were eager to specify some object of special favour, while little Francis showed them the wisdom of their choice by begging that he might have some of the money we had seen. "And what would you do with it when you had got it?" said I. "Oh,

papa," said he, "I would buy some nice sweet cakes, for the biscuits we have are so hard." We laughed heartily at the innocent simplicity of the little fellow, in which he joined as freely as the rest. Arrived at home, our first care was to turn the turtle on his back, to get the excellent meat out of the shell. With my hatchet I separated the cartilages that unite the shells: the upper shell is convex, the lower one nearly flat. We had some of the delicate flesh prepared for dinner, though my wife felt great repugnance in touching the green fat, notwithstanding my assurance of its being the chief delicacy of an epicure. We salted the remainder, and gave the offal to the dogs. The boys were all clamorous to possess the shell; but I said it belonged to Fritz, by right of conquest, and he must dispose of it as he thought best. "Then," said he, "I will make a basin of it, and place it near the river, that my mother may always keep it full of fresh water."

"Very good," said I; "and we will fill our basin, as soon as we find some clay to make a solid foundation." "I found some this morning," said Jack; "a whole bed of clay, and I brought these balls home to show you." I commended Jack for having thus used his eyes for the general behoof. "And I, too, have made a discovery," said Ernest. "Look at those white roots, something like the horse-raddish. The plant they belong to is a large bush, and they must be a safe food, for I observed the sow eating them with great relish." On examining the root, I had little doubt that we owed to Ernest a valuable addition to our food, since it appeared to be that from which the West Indians make their cassava cake, which would furnish us with a very palatable and nutritious substitute for bread, since it is from this that the well-known powder tapioca is made.

We had completed the unloading of our sledge, and I now set off, along with the three elder boys, to bring home a second portion of our freight before night came on. We brought up two chests of our own clothes and property, some chests of tools, the cart wheels, and the hand-mill, likely now to be of use for the cassava. After unloading, we sat down to an excellent supper of turtle, with potatoes instead of bread. "You must be greatly fatigued after the day's labour," said my wife, addressing me with a pleasant smile, "but I think I can produce a restorative that will be accept-

able to you." She then brought a bottle and glasses, and filled us each a glass of clear, amber-coloured wine. I found it excellent Malaga. She had been down to the shore the previous day, and there found a small cask thrown up by the waves. This, with the assistance of her sons, she had rolled



up to the foot of our tree, and there covered it with leaves to keep it cool till our arrival.

We were so invigorated by this cordial, that we set briskly to work to hoist up our mattresses to our dormitory, which we accomplished by the aid of ropes and pulleys. My wife received and arranged them, and, after our usual evening devotions, we gladly lay down on them to enjoy a night of sweet repose.

CHAPTER XVI.

CASSAVA-BREAD.

I ROSE before daylight, and, leaving my family sleeping, descended, to go to the shore to look after my vessels. I found our whole live stock already in motion, except the poor ass, on whom no inconsiderable portion of the previous day's labour had fallen. As he was the assistant I wanted, I was compelled to rouse him, a preference which did not appear to flatter him. Nevertheless, I harnessed him to the sledge, and, followed by the dogs, went forward to the coast, where I found my boat and raft safe at anchor. I took up a moderate load and came home to breakfast; but though the sun was now high in the heavens, our new mattresses had proved so agreeable that not one of the family was awake. They arose at my call, somewhat ashamed of their sloth, and, after a hasty breakfast, we all proceeded to the shore, in order to complete the unlading of the boat and raft, as I was desirous of taking advantage of the next tide to remove them to Safety Bay. I sent my wife up with the last load, while Fritz and I embarked, and, seeing Jack watching us, consented that he should form one of the crew, for I had determined to make another visit to the wreck before laying up our transports in Safety Bay, being tempted thereto by the fresh sea breeze which promised an easy return with a new freight. Before, however, we reached the ship, the day was so far advanced that we had only time to collect hastily any thing easy to embark. The boys ran about the vessel, bringing out objects of various kinds which struck their fancies, and Jack soon mounted the deck with a wheelbarrow he had got hold of, which would do famously, he said, for the visits to our potato field.

Fritz announced a still more important discovery. He had found, between decks, the pieces of a small pinnace, all marked for putting together, and with complete fittings, including even two small guns. Gratified as I was by this discovery, I saw that it was impossible to remove it at present. I urged on the boys the necessity of not losing a moment, and we accordingly got hastily on board our transports a copper boiler, some plates of iron, tobacco graters, two grind-

stones, a barrel of powder, and one of flints. Jack did not forget his wheelbarrow; and we found two more, which we added to our cargo, as well as some rope and sails that were lying at hand, and then sailed off speedily, to avoid the land wind, which rises in the evening.

When we approached the shore, we were astonished to see a row of little creatures, apparently regarding us with much curiosity. They were dressed in black, with white waistcoats and enormous cravats; their arms hung down carelessly; but from time to time they raised them as if they wished to bestow on us a fraternal embrace. "I believe," said I laughing, "this must be the country of pigmies, and they are coming to welcome us." As we discussed the probable nature of this strange array we were drawing every moment nearer the beach, and I speedily perceived that the little mannikins were none other than a group of penguins, of which Ernest had killed one soon after our first landing. They are good swimmers, but, unable to fly, are very helpless on land. I steered gently to the shore, so as not to disturb them; but before I could prevent it, Jack had leaped out, and, wading ashore, began to lay about him with a stick right and left, so that he had knocked down some half dozen of the awkward birds before they could escape into the water. I scolded Jack for his useless rashness, for the flesh of the penguin is by no means a delicacy.

The sun was already low on the horizon; so, after securing our raft and boat, we got out the three wheelbarrows, into which we put the most portable objects we had brought, not forgetting the sheets of iron and the graters, and trudged home. Our dogs announced our approach, and all rushed out to meet us. A curious and merry examination commenced. They laughed at my graters; but I let them laugh, for I had a project in my head. Jack, who had brought some of the penguins in his wheelbarrow, got the same reward for his pains. I conceived, however, that they might prove a useful addition to our poultry-yard, and ordered him to secure each of them by the leg to that of one of the geese, who opposed the bondage very clamorously; but necessity made them submissive.

My wife had not been idle in our absence, as appeared from a large supply of potatoes and cassava root, which had been

laid in with the help of Ernest and Francis. As we sat at supper, I recounted our proceedings at the wreck, and failed not to describe the discovery of the pinnace. My wife was by all means inclined to share in my satisfaction at the latter discovery, as she dreaded maritime expeditions; but she acknowledged that the possession of such a vessel as we described would help to lessen her uneasiness on our behalf.



As we withdrew for the night, I charged the boys to make their appearance in good time in the morning, as we had an important business on hand; and curiosity roused them all at an early hour. After our usual preparations for the day, I addressed them thus: "Gentlemen, I am going to teach you all a new business—that of the miller and baker. Give me the plates of iron and the graters we brought yesterday."



"Guided by the reins, the tortoise made swiftly for the shore, dragging the boat after it."—F. 165.

My wife was astonished ; but I requested her to wait patiently and she should have bread, not perhaps light buns, but eatable cakes. But first she was to make me two small bags of sail-cloth. She obeyed me ; but at the same time I noticed she set a good potful of potatoes on the fire, which was regarded as an omen that she had no great faith in my skill as a baker. I now spread a piece of coarse linen on the ground, and set each of the boys to work with a grater to rub down the manioc roots, which had been carefully washed, so that in a short time we had a heap of powdered or grated root. In its moist state it did not look very promising, and, accordingly, furnished the subject of some good-humoured jests among the little workmen, who, while enjoying the novel work of grating it, seemed to anticipate no great treat from a breakfast roll of scraped radishes.

"Laugh now, boys," said I ; "we shall see, after a while. But you, Ernest, ought to know that the manioc is one of the most highly esteemed of alimentary roots, forming the principal sustenance of many nations of South America, and often preferred by Europeans, who inhabit those countries, to wheaten bread."

When a sufficient quantity of the root had been grated, I filled the two bags closely with the pollard, and my wife sewed the ends up firmly. It was now necessary to apply strong pressure to extract the juice from the root, as this juice is a deadly poison. For this purpose I laid them both on our table, and, placing planks above them, I then took a long oaken beam, and securing one end of it to a root of the tree, we employed our united efforts in drawing down the opposite end till it could be brought no further. To this we now suspended the heaviest substances we possessed—hammers, bars of iron, and masses of lead. This acting upon the manioc, the sap burst through the cloth, and flowed on the ground copiously. When I thought the pressure was complete, we relieved the bags from the lever, and opening one, drew out a handful of the pollard, still rather moist, resembling coarse maize-flour. "It wants very little," I said, "to complete our success." I then took one of the iron plates I had brought from the ship, which was circular, and slightly concave in the centre, and, propping it up on stones over the fire, I kneaded a sufficient quantity of it together, adding a little

salt to it, and spread it out on the iron plate. It soon began to give off its remaining moisture, and, by the time it was beginning to brown on the under side, I turned it so as to have it equally fired.

The smell of my first cake was now so savoury that the boys were eager to partake of it; but I was too well aware of the danger incurred by rashly partaking of untried food, especially from the known poisonous nature of the sap. I decided, therefore, that we should give the first taste of our new bread to the monkey and to one or two of the chickens. As soon, therefore, as it was sufficiently cold, I gave some of the cake to two hens, which I placed apart, and also presented a piece of it to Master Knips, who ate it with so much relish and such grimaces of enjoyment that my young party were quite anxious to share his feast. I felt, however, that we could not exercise too great caution, and we accordingly proceeded to our dinner of potatoes, to which my wife had added one of the penguins, which was truly rather tough and fishy; but as Jack would not allow this, and declared it was a dish fit for a king, we allowed him to regale on it as much as he liked. During our repast, I warned the boys against imprudently partaking of strange fruits or vegetables they might see, however tempting, and described to them some of the poisonous berries and other fruits of tropical climates which are most attractive to the eye. I described, for instance, the manchineel, with its fruit resembling a tempting yellow apple, with red spots, which is one of the most deadly poisons; it is said that even to sleep under the tree is dangerous.

On leaving the table, we went to visit the victims of our experiment. Jack whistled for Knips, who came in three bounds from the summit of a high tree, where he had doubtless been plundering some nest; and his vivacity, and the peaceful cackling of the fowls, assured us our preparation was harmless.

"Now, gentlemen," said I laughing, "to work! Let us not lose a moment, and we shall soon taste the fruits of our morning's labours." They kindled the fire anew, and heated the iron plate. In the meantime, I broke up the grated cassava, strewed a portion of it upon the plate, and, after leaving it for a little till it was quite dry, I mixed it up with milk, and distributed about a cocoa-nut cupful to each. I next

took some of what I had reserved for myself, and, pouring it out like a pancake, I watched it till it began to brown, and then turned it with a fork. The boys followed my example, and were soon impatiently nibbling at their half-fired cakes. After a little time, we had a quantity of nice yellow biscuits, which, with a jug of milk, made us a delicious collation. The pigeons and fowls, as well as the ape, came in for a share of this our first baking. We determined, without delay, to set about cultivating the manioc.

The rest of the day was employed in bringing up the remainder of our cargo, by means of the sledge and our new wheelbarrows.

CHAPTER XVII.

THE PINNACE.

THE next morning I decided on returning to the wreck. The idea of the pinnace continually haunted my mind, and left me no repose. It was necessary that I should have all the aid I could command, and with difficulty I got my wife's consent to take my three elder sons, on promising her we would return the same day. The boys were delighted with the project, and Ernest especially, who had not yet visited the wreck. To secure against all ordinary risk, each of us was provided with a cork jacket, and, having laid in provisions for the day, we set sail in our tub-boat, with the raft in tow, and soon arrived at the vessel. The boys set to work with great zeal to load both the boat and raft with every portable thing they could lay hands on; but the great matter occupying my mind was the pinnace, which I now began to fear, from the bulk of its materials, and the inaccessible part of the vessel where it was stowed away, must entirely baffle us. The boys, however, had no such fear. Having completed their loading, they now joined me, and forthwith set to work with hatchets and crowbars to break up the deck so as to get it out. But the ship was stoutly built, large timbers impeded our efforts, and though we contrived to clear away a considerable space, evening set in without our having nearly effected our purpose, and we were forced reluctantly to put to sea with our cargo, resolving to return to our work on the

morrow. On reaching Safety Bay, we were gratified to find my wife and Francis there, who had established themselves at Tent House, intending to continue there till our visits to the vessel were concluded, that they might always keep us in sight, and spare us the unnecessary labour of a walk after our day's work. I failed not to thank my wife for this new token of her kind thoughtfulness and attention; and, in order to gratify her in return, I produced from our cargo two casks of salt butter, three of flour, several bags of millet, rice, and other grains, and a variety of useful household articles, well calculated to reconcile her to the idea of our revisiting the wreck, and which she removed with manifest satisfaction to our store-house.

For a week we spent every day in the vessel, returning in the evening to enjoy a good supper, bringing back whatever seemed calculated to be of the slightest use to us; and my wife, happily engrossed with her poultry and other household cares, became accustomed to our absence. With incredible labour we at length got the pinnace put together, and in a condition to be launched. Its construction was light and elegant; it looked as if it would sail well; at the stern was a neat half-deck; the masts and sails were like those of a brigantine. We caulked all the seams with tow dipped in melted pitch; completed all its equipment, even to two small brass guns, which we secured in their places. And there stood the beautiful little bark, immovable on the stocks! We admired it incessantly; but what could we do to get it afloat? The difficulty of forcing a way through the mighty timbers lined with copper that formed the side of the ship seemed insurmountable; and we saw that, should a storm arise, the ship and pinnace must disappear together.

Desperation at length suggested an expedient to me, which, while it endangered the risk of all, seemed to offer a chance of success. I kept my project concealed, however, to avoid the vexation of a possible disappointment, but began to execute my plan. Having found a large cast-iron mortar, I filled it with gunpowder, and having secured an oaken beam to the top, in which I had previously made a hole for inserting the match, I attached this huge petard, by means of ropes, to one of the largest bulk-heads next the sea, taking care to place it where its recoil would not be likely to injure

the pinnacle. I then secured it to the adjoining timbers as strongly as possible by means of an iron chain; and, having attached a long match, which should allow sufficient time for our escape, I ordered all the boys into the boat; I then lighted the match with a beating heart, and hurried after them. Although the boys had lent a helping hand in fastening



on the mortar, they had no idea of its contents, and were entirely ignorant of my project.

As soon as we reached our harbour, I detached the raft, that I might return in the boat as soon as I heard the explosion. We began actively to unload the boat, and while thus employed a report like thunder was heard. All trembled, and threw down their load in terror. My wife was the first to recover presence of mind. "It seems," said she, "to proceed from the wreck. I shall not be sorry if it has gone to

the bottom." I hastily counselled the boys to get into the boat that we might go and see, while I stayed a moment behind to whisper a word of explanation to my wife.

We rowed out of the bay so soon as I had jumped into the boat, and never made the voyage so quickly; curiosity gave a strong stimulus to our exertions. I observed with satisfaction, as we approached, that the side nearest us remained unchanged, and was glad to see no appearance of flames, or even of smoke. Instead of getting on board, however, as usual, I directed the boys to row to the opposite side of the ship. The effect produced by the explosion was amazing. The greater part of the ship's side had disappeared, and the sea around was strewn with the fragments. We saw our beautiful pinnace fully exposed to view, and quite uninjured, only leaning a little over the stocks. At the sight I cried out, in a transport that amazed my sons, "Victory! victory! the charming vessel is our own; it will be easy now to launch her." Fritz looked at me for a moment, and then, turning to his brothers, said, "Ah! now I comprehend it all. That machine we helped papa with was to blow out the side of the ship!"

I hastily explained how I had effected this as we were getting on board. We had taken care to lay the keel of the pinnace on rollers, and now easily moved it to the opening; then attaching a strong cable to her head, and fixing the other end to the most solid part of the ship, we easily launched her. It was too late to do any more now, except carefully securing our prize; and we returned to my invaluable helpmate, to whom, wishing to give her an agreeable surprise, we merely said that the side of the vessel was blown out with powder, but we were still able to obtain more from it, at which she sighed, and in her heart, I have no doubt, wished the vessel and all it contained at the bottom of the sea.

On returning on the morrow, we still found that we had a considerable amount of work before us, and two whole days were spent in completing the rigging and equipment of our elegant little pinnace. When all was ready, my boys obtained permission, as a reward for their industry, to salute their mamma, as we entered the bay, by firing our two guns. We found enough remaining in the wreck for an ample cargo, including many articles which had been too bulky for our

voyage. Fritz was appointed captain, and Ernest and Jack stood to the guns ready to fire at the word of command, while I acted as pilot. The pinnace glided gracefully through the water, followed by the tub-boat in tow, laden with a variety of useful articles. As we neared the shore, the boys fired their salute, and their mother immediately rushed out of the tent, holding Francis by the hand, evidently alarmed; but our joyful shouts soon re-assured them, and they were ready to welcome us with astonishment and delight. Fritz placed a plank from the pinnace to the shore, and, assisting his mother, she came on board. They gave her another salute, and christened the vessel *The Elizabeth*, after her.

My wife praised our skill and perseverance. "But," said she, "you must not suppose that either Francis or I have been idle in your absence." We moored the little fleet safely to the shore, and followed her up the river to the cascade, where we saw a neat garden laid out in beds and walks. "This is our work," said she; "the soil here, being chiefly composed of decayed leaves, is light and easy to dig. There I have my potatoes; there manioc roots; these are sown with peas, beans, and lentils; in this row of beds are sown lettuces, radishes, cabbages, and other European vegetables. I have reserved one part for sugar-canes; on the high ground I have transplanted pine apples and sown mellons. Finally, round every bed I have sown a border of maize, that the high, bushy stems may protect the young plants from the sun."

We were surprised and delighted at what she had accomplished in so short a time, and thus each of us enjoyed the innocent pleasure which the disclosure of our secrets gave rise to. My wife, now full of her garden projects, reminded me of the young fruit-trees we had brought from the vessel; she had been careful to keep them damp, but now longed to see them finally planted. I promised to look after them next day, and to establish my orchard near her kitchen garden.

We unloaded our vessels, placed on the sledge all that might be useful for our immediate wants, and, having seen both the pinnace and our clumsy but very useful tub-boat safely secured, we set off for Falcon's Nest, where we arrived soon, to the great comfort of my wife, who dreaded the burning plain at Tent House.

CHAPTER XVIII.

GYMNASTIC EXERCISES.

AFTER our return to Falcon's Nest, I requested my sons to continue their exercises in gymnastics. I wished to develope



all the vigour and energy that nature had given them, and which, in our situation, were especially necessary. I, therefore, encouraged them to compete with one another in running, leaping, and wrestling, in archery and throwing the stone, and in climbing trees, or ropes suspended from their highest branches, and corresponding in some degree to the rigging of the ship. I next taught them to use the lasso, an instrument by means of which the South Americans are able even to capture buffaloes and wild horses. I fixed two

balls of lead to the end of a cord about a fathom in length, and flinging off the one at the trunk of a tree, it coiled round it so firmly that had it been a moveable object I could readily have drawn it to me. The Patagonians use this weapon



with wonderful dexterity. Having no leaden balls, they attach a heavy stone to each end of a cord about thirty yards long. If they wish to capture an animal, they hurl one of the stones at it with singular address. By the peculiar art with which the ball is thrown, the rope makes a turn or two round the neck of the animal, which remains entangled, without the power of escaping. The experiment delighted

the boys, and I had soon the pleasure of seeing them all practising the use of this novel weapon with increasing skill and dexterity. Fritz speedily acquired great freedom in its use, and I regarded it with satisfaction as one of the resources we had to fall back upon when our ammunition failed.

The next morning the wind was blowing strong, and the sea considerably agitated. I therefore directed my attention for the day to home employments, and volunteered my services to my wife for any plans she had in view. After examining the state of our winter stores, and the plentiful supply of cassava bread which she had made from our first flour, I proceeded to plant our young fruit trees in a piece of ground which I laid out for the purpose.

The day passed in these employments; and, as we had lived only on potatoes, cassava bread, and milk for this day, we determined to go off next morning in pursuit of game to recruit our larder. At dawn of day we all started, including little Francis and his mother, who wished to take this opportunity of seeing a little more of the country. My sons and I took our arms; I harnessed the ass to the sledge which contained our provision for the day, and which was destined to bring back the products of the chase; Turk accompanied us, accoutred in his porcupine mail, and the monkey joined the cavalcade, mounted on the more patient Bill.

We crossed Flamingo Marsh and reached the luxurious plain beyond it, which filled my wife and the younger children, who had not seen it before, with admiration. Fritz left us, accompanied by Turk. We soon heard the report of his gun, and an enormous bird fell a few paces from us; but the bird was only slightly maimed, and defended itself with vigour against both Turk and Bill, the latter of whom had thrown her rider and hastened to partake of the sport. I threw a handkerchief over its head, and, confused by the darkness, I had no difficulty in binding it, and conveying it in triumph to the sledge. We were all in raptures at the sight of this beautiful creature, which Ernest pronounced to be a female of the bustard tribe. My wife hoped that the bird might be domesticated among her poultry, and, attracting some more of its species, might enlarge our stock of useful birds.

We soon arrived at the Wood of Monkeys, where Fritz

had his adventure with the poor little ape. Fritz amused his mother and brothers by relating the stratagem by which we obtained our first supply of nuts. Ernest looked up wistfully at the nuts; but there were no monkeys to throw them down. "If one would only fall from the tree!" he exclaimed; and he had scarcely uttered the word when a beautiful large cocoa-nut fell almost at his feet. He involuntarily sprung aside, when another followed it, to the astonishment of all. "It seems as if we had the fairy's wishing-cap," said one of the children, and I was puzzled myself to account for it, as the nuts were still far from the state when they were likely to fall of themselves; yet I could neither see bird nor monkey that could have occasioned it. All at once Jack shouted out, "Look, 'papa! here comes the magician. Here is the fairy—a most ugly fellow." A large land-crab descended leisurely down the trunk of the tree. Jack boldly struck a blow at him, but missed, and the animal, opening its enormous claws, made up to its opponent, who fled in terror. The shout of merriment which his brothers set up recalled the fainting courage of the boy; and proceeding now more deliberately, he threw off his coat, and, suddenly dropping it on the crab, he thus effectually checked its movements, and going to his assistance, I killed it with a blow of my hatchet. They all crowded round the frightful animal, anxious to know what it was. I told them it was a land-crab,* which breaks off the cocoa-nuts, as we had now seen, in order to feast on them. Being unable to break the shell of the nut, of which they are very fond, they climb the tree, and break them off in the unripe state. They perforate them through the holes at the narrow end of the nut, and abstract the contents. They sometimes find them broken by the fall, when they can eat them at pleasure.

The hideousness of the animal, and the mingled terror and bravery of Jack, gave us subject of conversation for some time. We placed our booty on the sledge, and continued to go on through the wood. Our path every instant became more intricate, from the amazing quantity of creeping plants which choked the way, and obliged us to use the axe continually. The heat was excessive, and we got on slowly; when Ernest, always observing, and who was a little behind us, cried out, "Halt! a new and important discovery!"

We returned, and he showed us that from the stalk of one of the creepers we had cut with our axe there was issuing clear, pure water. It was the *liane rouge*, which, in America, furnishes the hunter such a precious resource against thirst. Ernest was much pleased; he filled a cocoa-nut cup with the water, which flowed from the cut stalks like a fountain, and carried it to his mother, assuring her she might drink fearlessly; and we all had the comfort of allaying our thirst, and blessing the Gracious Hand who had placed this refreshing plant in the midst of the dry wilderness for man's benefit.

We now marched on with more vigour, and soon arrived at the Gourd Wood, where my wife and younger sons beheld with wonder the growth of this remarkable fruit. Fritz repeated all the history of our former attempts, and cut some gourds to make his mother some egg baskets, and a large spoon to cream the milk. While we all worked at making baskets, bowls, and flasks, Ernest, who had no taste for such labour, explored the wood. Suddenly we saw him running to us in great terror, crying, "A wild boar, papa! a great wild boar!" We called on the dogs, and hastened after them to the spot, with our guns ready in our hands. We soon heard barking and loud grunting, which proved the combat had begun, and, hoping for a good prize, we hastened forward; but our alarm was speedily changed to mirth, on finding that the terrible wild boar was only our own great sow, which had escaped into the woods, and was now vehemently complaining of the assault of Turk and Bill, who had seized her by her long ears. I called them off, and the sow speedily resumed her feast on a species of apple, which appeared to have fallen from the trees under which we then were. I lifted one of them, which resembled a medlar, and on cutting it open I found it contained a rich pulpy juice, with a very pleasant flavour, but did not venture to taste it till we had put it to the usual test. We collected a quantity, and returned to our party. Master Knips no sooner saw them than he seized on some and crunched them up with great enjoyment; and the bustard, in like manner, freely partook of them. This satisfied me that the fruit was wholesome. My wife ~~was~~ was especially delighted when I told her this must be the *gy-va*, from which the delicious jelly is obtained, so much prized in America.

"But, with all this," said Fritz, "we have a poor show of game. Do let us leave mamma with the young ones, and set off to see what we can meet with." I yielded to his importunities, and, setting off with our guns, and accompanied by Jack, we left Ernest with his mother and Francis. We made our way through a thicket in front of us towards a high rock



which we saw on the right. Jack boldly pushed on ahead, making us follow him occasionally by the sound of the breaking branches which gave way before him, when he suddenly startled us with the announcement that he had seen a crocodile. I was inclined to smile at the boy's simplicity, knowing the unsuitableness of the locality for the monstrous reptile; but, as we cautiously approached, I recognized in the object of his apprehension a large iguana—a species of lizard, the eggs and flesh of which are both esteemed as great

delicacies. Fritz would have fired immediately, but I checked him, warning him that its scales were probably proof against his shot. I resolved to try the effect of a very different charm: remembering that the whole family of lizards are more or less affected by music, and that the natives are accustomed to subdue the iguana by its means, I approached him slowly, whistling a low and plaintive air, while I held in the one hand a stout stick, to which I had attached a cord with a noose, and in the other a slight wand. The animal awoke, and looked about, apparently listening with pleasure, moving his tail slowly and turning his head from side to side. I drew nearer, tickling him gently with the wand, and continuing the music without intermission. He lifted up his head and opened his formidable jaws. Watching my opportunity; I threw the noose round his neck, drew it, and, jumping on his back, I thrust the wand into his nostril, almost the only vulnerable part of this singular reptile. The blood flowed copiously, and it was soon dead, apparently without pain.

Our prize, about five feet long, was a most unwieldy burden. After considering various expedients, I could find no better means of transport than by getting it on my back. Fritz and Jack presented themselves as pages, contending which should support my train, as they called the tail, which, independently of the good humour inspired amongst us, considerably eased me of the weight, and in this way we reached the sledge.

My wife had begun to feel anxious at our protracted absence, and was delighted to see us return, though my burden, which appeared in no degree attractive to her, filled little Francis with terror. I soon, however, succeeded in satisfying them of the value of our prize; and as my wife now warned us that it was growing late, we partook of the provisions we had brought with us, and prepared to return home. As the sledge was heavily laden, we decided to leave it till the next day, placing on the ass the iguana, the crab, our gourd-vessels, and a bag of the guavas, little Francis being also mounted. The bustard we loosened, and, securing it by a string tied to one of its legs, led it with us.

We arrived at home in good time. My wife prepared part of the iguaná for supper, which was pronounced excellent.



PISAN.

"Stretching ourselves at full length, we gazed in silence for a time on the surrounding country."—P. 172.

The crab was also cooked; but its tough and tasteless flesh met with little favour. The work of the day made us all welcome the return of bed-time, and, having mounted to our dormitory, we were all soon asleep.

CHAPTER XIX.

EXPLORING EXCURSION.

My first thought, the next morning, was to fetch the sledge from the wood. I had a double motive for leaving it there, which I had refrained from explaining to my wife, to avoid giving her uneasiness. I had formed a wish to penetrate a little further into the country, and satisfy myself that it was an island, and not a part of the continent. I set off with Fritz, taking Turk with us, and the ass.

On arriving at the evergreen oaks we had passed on the previous day, we found our truant sow busy regaling herself on the acorns. We were in so far gratified by finding that our encounter with her the day before had not made her more inclined to avoid us. A little further on we saw some beautiful birds; Fritz shot some, among which I recognised the large blue Virginian jay, and some different kinds of parrots. As he was reloading his gun, I was struck by singular sounds which we heard, somewhat resembling those of a muffled drum, and accompanied with a noise like that of the sharpening of a saw. My first idea was of music played by savages, and we advanced cautiously, and not without considerable trepidation, to discover the cause of these strange sounds. At length, gently drawing aside the close boughs of a thicket, we perceived a bird of brilliant plumage seated on the decayed stump of a tree. It spread its wings and tail, and strutted about with strange contortions, to the great delight of its mates, who seemed lost in admiration of him. At the same time he made the sharp cry we heard, and, striking his wings against the tree, produced the drumming sound. I knew this to be the *ruffed grouse*, one of the greatest ornaments of the forests of America, and watched the whole proceedings with the most lively interest, being curious to see what would be the result of this singular natural comedy;

but my insatiable hunter soon put an end to the scene; he fired at the bird, who fell dead, and his crowd of admirers, with piercing shrieks, took to flight.

I reprimanded my son for so rashly killing everything we met with without consideration, and for the mere love of destruction. He seemed sensible of his error, and as the thing was done, I thought it as well to make the best of it, and sent him to pick up his game.

We continued our march. Arriving at the guava trees, we refreshed ourselves with some of their fruit, and soon after reached the spot where we had left our sledge; but as the morning was not far advanced, we determined to leave all here, and proceed in our projected excursion beyond the chain of rocks; but we took the ass with us to carry our provisions, and any game or other object we should meet with in the new country we hoped to penetrate. Amongst gigantic trees, and through grass of prodigious height, we travelled with some labour, looking right and left to avoid danger, or to make discoveries. Turk generally led the way. We met with plains of potatoes and of manioc, amongst the stalks of which were sporting tribes of agoutis; but we were not tempted by such game. On entering a pretty little grove, we observed a bush loaded with small white berries, which, after examining, I pronounced to be the curious fruit of the candleberry myrtle, or wax tree, from which a species of wax is procured which may be made into candles. Pleased to find an object that I knew would be prized at home, I called on Fritz to help me in gathering these berries, which, though not edible, would be highly esteemed by his mother, who had already lamented that she should be compelled to lay by her most important avocations whenever the sun went down.

As we proceeded on our route, a new curiosity attracted our attention. This was a colony of birds of a small size, and no way remarkable for beauty, their plumage being black. They lived in nests, sheltered by a common roof, in the formation of which they had probably laboured jointly. This roof was formed of clay and rushes, equally impenetrable to sun or rain. As we stayed to examine this remarkable natural curiosity we perceived also various beautiful small parrots, of rich green and golden plumage, hovering about the nests, and

apparently seeking to force an entrance. This added to Fritz's curiosity, and he forthwith climbed the tree; and, after some difficulty and various unsuccessful trials, he found one of the nests, containing a bird sitting on its eggs, and, inserting his hand, he drew forth, not one of the blackbirds,



but a beautiful little parrot. The signals of distress sent forth by the prisoner soon collected a multitude of the parrots around Fritz, fluttering about and attempting to peck at him, but he reached the ground in safety, and, with my permission, decided on carrying his prize home with him, where he hoped to tame it and teach it to speak.

We now directed our route homeward. The gorgeous plumage of the birds, and wonderful beauty of the insects and flowers, constantly tempted us to pause, and excited in our minds renewed wonder and admiration. The singular

bird-colony we had seen also led us to converse on the gregarious and social habits frequently manifested in various classes of the animal kingdom, from the vast herds of buffaloes and antelopes down even to the ant or bee; and I mentioned particularly those immense ant-hills of America, of which the masonry is finished with such skill and solidity, that they are sometimes used for *ovens*, to which they bear a resemblance. We also called to remembrance the singular habits of the beavers, which live in large communities on the banks of rivers, and, by their united labours, are able to construct dams across running streams of great size, and erect beaver villages on the banks of the still water provided for them by such means. Thus conversing, we walked pleasantly along, pursuing our way homeward by a new route.

We had now reached some trees entirely unknown to us. They were from forty to sixty feet in height, and from the bark, which was cracked in many places, issued small balls of a thick gum. Fritz got one off with difficulty, it was so hardened by the sun. Having been accustomed at home to employ some of the resinous gums of the pine, as well as that of the cherry-tree, both as cements and varnish, he attempted to soften this with his hands, but found that heat only gave it the power of extension, and that by pulling the two extremities, and then releasing them, it immediately resumed its first form. He was struck with surprise, and sprang towards me, repeating the experiment before my eyes, and exclaiming, "Look, father, if this is not the India rubber which we were wont to use when drawing at home!" I took hold of the object of his examination, and remarked, "I do believe you have made a most important discovery." He thought I was laughing at him, for we had no drawing to rub out here; but, having satisfied myself that his conclusion was right, I proceeded to explain to him how many useful purposes it could be applied to; we might make bottles, elastic bells, and many other useful articles—even shoes—of it. This interested him. How could we accomplish this?

"The caoutchouc," said I, "exudes, as you have seen, in the form of a milky sap from certain trees of the *Euphorbium* kind. In order to collect it in large quantities, the natives make incisions in the bark, and receive it in vessels, in which it is prevented from solidifying by agitating and shaking

them. In this state they cover little clay bottles with successive layers of it till it attains the required thickness. It is then dried in smoke, which gives it the dark brown colour. Before it is quite dry, it is ornamented by lines and flowers drawn with the knife. Finally, they break the clay model, and extract it from the mouth, and there remains the India rubber bottle or shoe, soft and flexible. Now this is my plan for shoemaking: we will fill a stocking with sand, cover it with repeated layers of the gum till it is of the proper thickness, then empty out the sand, and, if I do not deceive myself, we shall have perfect boots or shoes." Fritz now gave full play to his delight. "It is enough," cried he exultingly, "for one day, to have made such a discovery. It is delightful!"

Anticipating the future comfort to be derived from our caoutchouc shoes, we continued our route through an interminable forest of various trees. The monkeys on the cocoa-nut trees furnished us with pleasant refreshment, and a small store of nuts besides. Among these trees I saw some lower bushes, whose leaves were covered with a white dust. I opened the trunk of one of these, which had been torn up by the wind, and found in the interior a white farinaceous substance, which, on tasting, I knew to be the sago extensively used in Europe. This, as connected with our subsistence, was a most important affair, and we accordingly collected the whole supply that the fallen tree yielded. We now returned to the Gourd Wood, placed all our treasures on the sledge, and took our way home. To avoid the thick underwood which had so impeded our progress on the previous day, we took a new course in the direction of the shore. By doing so we reached the sugar-cane plantation, which we had formerly discovered near Cape Disappointment, and, taking advantage of our means of conveyance, we added to our patient ass's load a large bundle of these useful canes.

On reaching Falcon's Nest our various treasures excited the liveliest curiosity and satisfaction. My wife produced from the sledge the sago and the sugar-canes, while the boys were intent on examining the plumage of the jay and parrots; but when Fritz produced from his pouch the beautiful little green parrot, still alive, their delight was beyond all bounds. We talked of the caoutchouc and new boots with great delight

during supper, and afterwards my wife looked with exceeding content at her bag of candleberries, anticipating the time when we should not have to go to bed, as we did now, as soon as the sun set.

CHAPTER XX.

USEFUL AND ORNAMENTAL ARTS.

ON the following day, my wife and the boys importuned me to begin my manufactory of candles. I remembered having seen the chandler at work, and I tried to recal to my mind all that I knew of the process. A little animal fat I knew was desirable to mix with the wax in order to make it produce a clearer light; but I was compelled to proceed without. I placed a large shallow boiler on a moderate fire, and filled it with the berries. As the heat increased, the wax slowly melted and rose to the surface of the liquid which the berries yielded. This I carefully skimmed with a large flat spoon, and put it in a separate vessel which I placed near the fire to preserve it in a liquid state; when this was done, my wife supplied me with some wicks she had made from the threads of sailcloth. These were attached, four at a time, to a small stick; I dipped them into the wax, and placed them on the neighbouring bushes to harden. By the time that the last was dipped, I found the first already firm, so that I was able to repeat the process continuously until the wax had accumulated to a sufficient thickness round the wicks. The whole were then placed in a convenient shady place to harden. That same evening one of the new candles was inserted in a clay socket and lighted on our table to the great delight of all, who felt in this apparently trivial luxury an object which recalled the most delightful associations with our old European home. Its practical value, however, was great, as it enabled us to add many useful hours to a busy day.

Our success in this important matter encouraged me to attempt expedients to supply other wants. My wife had long regretted that she had not been able to make butter. She had attempted to beat her cream in a vessel; but either the heat of the climate or her want of patience rendered her

trials unsuccessful. I was unwilling to waste time in the construction of a regular churn, as I greatly doubted my skill; but I fancied that by some simple method, like that used by the Hottentots, who put their cream in a skin and shake it till they produce butter, we might attain the same result. I, therefore selected a large gourd in which only a



small aperture had been made in the side, and, having carefully cleaned it inside, I nearly filled it with cream, and then, laying another piece on the hole, I bound it up firmly so that none should escape. I fastened a stick to each corner of a square piece of sail-cloth, placed the gourd in the middle, and, giving a corner to each of my sons, directed them to rock the cloth with a slow, regular motion, as you would a child's cradle. The employment seemed to them excellent sport, and was kept up with great mirth and humor-

ous jesting for nearly an hour. On taking off the cover, I had then the satisfaction of seeing my wife take from the gourd a supply of excellent fresh butter.

My next work was the construction of a two-wheeled cart—our sledge being unfitted for some roads: the wheels I had brought from the wreck rendered this less difficult; and I completed a somewhat clumsy, but very useful vehicle. While I was thus occupied, my wife engaged the boys to assist her in planting some of our fruit trees, and placing them in the most favourable situations. When I had completed my work, I went to their assistance. The vines we planted round the roots of our trees, and hoped in time to form a trellis-work. Of the chesnut, walnut, and cherry-trees we formed an avenue from Falcoln's Nest to Family Bridge, which, we hoped, would ultimately be a shady road between our two mansions. We made a solid road between the two rows of trees, raised in the middle and covered with sand, which we brought from the shore in our wheelbarrows. To complete our avenue, we had to select from among the native trees those which seemed best adapted to our purpose; and we also applied some of them to form a shelter from the sun, so as to protect some of the more delicate European plants from its scorching heat. We then turned our thoughts to Tent House, our first abode, and which still might form our refuge in case of danger. Nature had not favoured it: but our labour soon supplied all deficiencies. We planted round it such native trees as seemed to thrive best under an exposure to heat and drought; the citron, pistachio, the almond, the mulberry, the Siamese orange, of which the fruit is as large as the head of a child, and the Indian fig, with its long prickly leaves; and as they grew with all the rapidity of tropical vegetation, our store-house, where all our most valuable property was secured, was soon surrounded with a natural rampart, which not only concealed it from view, but was impenetrable to man or beast. Our bridge was the only point of approach, and we always carefully removed the planks after crossing it. We also placed our two cannon on a little elevation within the inclosure; and, finally, we planted some cedars near our usual landing-place, to which we might at a future time fasten our vessels.

We were employed unceasingly for six weeks in this work,

with the exception of each returning Sunday, which we joyfully spent as a day of rest. This continuous employment proved altogether conducive alike to health and to a contented cheerfulness of mind. The embellishment of our dwelling gave it new attractions in our eyes, and the planting and sowing of our orchard and garden gave us new sources of hope and anticipation, which helped to remove every tendency to repining at our lot. All went on well in our little colony. We had an abundant and certain supply of provisions; but our wardrobe, notwithstanding the continual repairing my wife bestowed on it, was in a most wretched state, and we had no means of renewing it, except by again visiting the wreck, which I knew still contained some chests of clothes and bales of cloth. This decided me to make another voyage; besides, I was rather anxious to see the state of the vessel.

We set sail accordingly on the following morning, and reached the wreck without difficulty. Though considerably more shattered than when we saw it last, it still remained firmly jammed into the hollow of the rock on which it had struck, where, indeed, it seemed likely to remain till broken away piecemeal by the waves. Having now such facilities for convenient transport, I resolved to complete the work of despoiling the wreck of everything that could possibly prove useful. We secured the large chests, some of which contained an ample store of clothes. We also removed the whole remaining supply of the ship's ammunition and shot, and took with us such of the cannon as were not too heavy to be of use to us. From the latter we took the carriage-wheels; and, returning day after day, we stripped the vessel of doors, windows, locks, bolts, spars, funnels, and every article that could be removed. We then tore up the planks of the deck, in doing which we exposed four large copper cauldrons, which had been designed for a sugar manufactory. These proved too large for us to lift, so we tied them to some large empty casks, which we pitched completely over, so as to prevent their sinking when the ship went down.

When we had completed our arrangements, I resolved to blow up the ship. We placed a large barrel of gunpowder in the hold, and, attaching to it a match which would burn for a long time before it reached the powder, I returned

hastily to the pinnacle, and made for the shore. We arrived speedily in Safety Bay, and, having secured the pinnacle, proceeded to Tent House. I proposed to my wife to sup on a point of land where we could distinctly see the wreck. Just as the sun was going down, a majestic rolling, like thunder, succeeded by a column of fire, announced the destruction of



the vessel which had brought us from Europe and bestowed its great riches upon us. We could not help shedding tears as we heard the last mournful cry of this sole remaining bond that connected us with home. Our last aim had been accomplished; yet, though it was the successful result of our own plans, we returned to Tent House that evening with a feeling of sadness as if we had lost an old friend; though my wife, I believe, felt it a relief to her mind to know that we could

no longer expose ourselves on a wreck which she had dreaded would go to pieces, carrying us with it into the deep.

We rose early next morning, and hastened to the shore, which we found strewn with the fragments of the wreck, as well as some of its contents which had lain beyond our reach in the hold. We also observed other objects afloat at some distance, among which we recognized a group of casks which we had little doubt supported the copper cauldrons we had secured to them on the previous evening. We jumped into the pinnace and made off to take them in tow. With the help of these large copper boilers, we ultimately constructed a powder magazine, separated into three distinct compartments, by means of which our ammunition was effectually secured against damage either from fire or water.

My wife, in assisting us in our final labours in connexion with the wreck, made the agreeable discovery that one of the geese and two of the ducks had each hatched a little brood, and had been found by her leading off their young families to the water. This reminded us all of our poultry and domestic comfort at Falcon's Nest; and we determined to defer for some time the rest of our work at Tent House, and to return the next day to our shady summer-house.

CHAPTER XXI.

NEW DISCOVERIES.

ON entering our plantation of fruit-trees, forming the avenue to Falcon's Nest, I was concerned to see my young plants beginning to droop, and I accordingly resolved to proceed to Cape Disappointment the next morning to cut bamboos to make props for them. No sooner did I mention my proposal than a host of reasons were produced, requiring that one and all should accompany me. Our supply of candles was nearly exhausted, and we must have more berries, for my wife now devoted the evening to her needle, and my own journal was written by candle-light. Fritz took for granted he should be my companion. My wife wanted to collect some wild fowls' eggs to put below her hens. Jack must needs go to gather guavas for himself; and even little

Francis expressed his desire to see the sugar-canes growing. So on the following morning we all set off together, taking the cart, with the cow and ass, to convey provision, and a large sail-cloth to make a tent. The weather was delightful, and the whole family were in the highest spirits.

We crossed the potato and manioc plantations and the wood of guavas, on which my boys feasted to their great satisfaction. The road was rugged, but we assisted to move the cart, and rested frequently. Our first halt was at the bird colony, from whence Fritz had brought his parrot. Ernest recognized the birds to be of the species of *Loxia gregaria*, the sociable crossbeaks. He pointed out to us their wonderful instinct in forming their colony in the midst of the candle-berry bushes, on which they feed. We filled two bags with these berries, and another with guavas, from which my wife proposed to make jelly. We then proceeded to the caoutchouc-trees, and here I determined to rest awhile, to collect some of the valuable gum. We had brought some large gourd-shells with us for the purpose. I made incisions in the trees, and placed these bowls to receive the gum, which soon began to run out in a milky stream, and we hoped to find them filled on our return. We pursued our route, and, after passing the cocoa-nut trees, we at length found ourselves near the shore, midway between the sugar-cane and bamboo plantations, while in front of us was the great bay stretching off towards Cape Disappointment, which bounded our view on the right and extended far into the sea.

The great beauty of the scene was so gratifying to all of us, that we at once decided to make this our resting-place and future station for halting in all such expeditions. We even momentarily entertained the idea of deserting Falcon's Nest for the shade of these beautiful palm-trees. A very slight reflection, however, sufficed to dismiss from our minds all thoughts of forsaking our dear castle in the air, on which so much labour had already been satisfactorily expended. We determined, however, to make it our abode for the night, and accordingly loosed our animals that they might freely graze on the rich grass around us. After a light repast, we separated on our several employments—some to cut sugar-canes, others bamboos, and, after stripping them, to make them into bundles, and place them in the cart. This hard

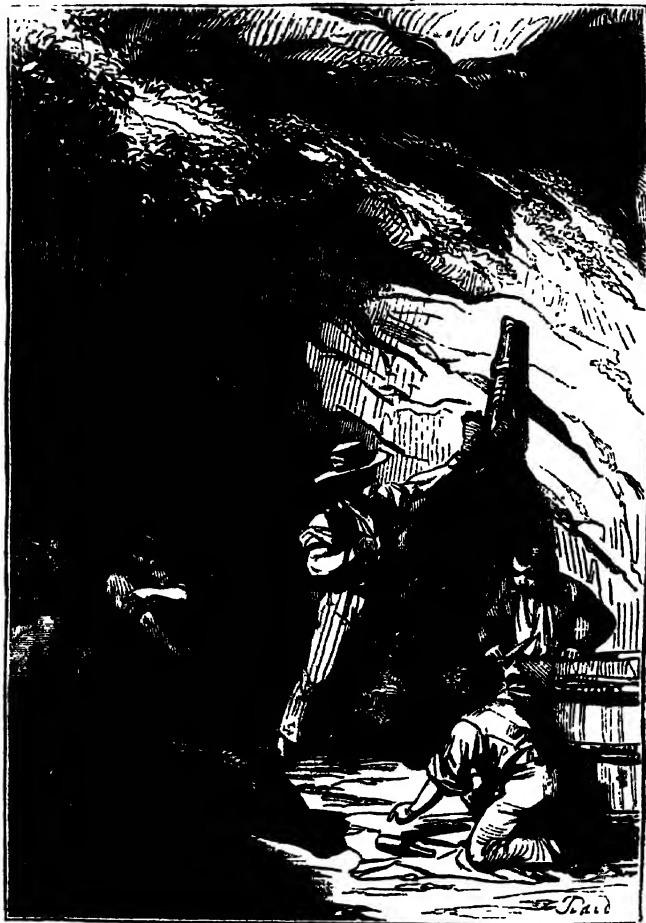
work made the boys hungry ; they refreshed themselves with the sugar, but had a great desire to have some cocoa-nuts. Unfortunately, there were neither monkeys nor crabs at hand to minister to our wants. The many attempts they made to climb the lofty, bare trunk of the palm ended only in disappointment and confusion. I went to their assistance. I gave them pieces of the rough shark's skin, which I had brought with me on purpose, to brace on their legs, and, showing them how to climb by the aid of a cord fastened round the tree with a running noose, a method practised with success by the savages, my little climbers soon reached the summit ; they then used their hatchets, which they carried at their belts, and a shower of cocoa-nuts fell down. Our little monkey, which had been watching their proceedings, suddenly leaped to a neighbouring palm-tree and nimbly mounted to the top, from whence he detached the nuts almost as quickly as Fritz and Jack with their hatchets. Ernest alone remained inactive ; and his brothers failed not to make his indolence the subject of their jests as we sat together discussing the fruits of their exertions. Ernest, however, regardless of their banter, sat looking up at the trees with an abstracted air. Rising suddenly, and looking at the palms, he took a cocoa-nut cup and a tin flask with a handle, and gravely addressed us thus, "Most honoured gentlemen and lady, it is most true that the climbing of these trees is neither easy nor pleasant to me ; but, since the accomplishment of this feat is deemed so honourable, I will also try this marvellous exploit, and see if I cannot bring down as valuable a prize as these nuts of my brothers." He then bound his legs with the pieces of shark's skin, and, with singular vigour and agility, sprang up a palm which he had long been attentively examining. His brothers laughed at his taking the trouble to ascend a tree that had not a single nut on it. Ernest took no notice of their ridicule, but, as soon as he reached the top, struck with his hatchet, and a tuft of tender yellow leaves fell at our feet. We were at first inclined to regard this as only a piece of mischievous and unprofitable bravado ; but, on attentively examining them, I perceived that the intelligent boy had detected for us the cabbage-palm, a source of food highly prized in South America for its delicate and nutritive qualities. After

retaining his place for some time, he descended, and, producing the nut-shell he had carried with him, he said, with a triumphant air, "See, father, I have brought you a still greater treat, which I hope will prove to your mind." As he said this, he presented me with the shell, filled with a clear, rose-coloured liquor, which I recognised on tasting as



genuine palm-wine, which is as pleasant as champagne, and, taken moderately, a great restorative. I passed it to my wife, who again permitted the boys to partake of it; and Ernest was praised and thanked by all, till he forgot all the scoffs he had received.

As it was getting late, we set about putting up our tent for the night, when suddenly our ass, who had been quietly grazing near us, set up a loud bray, and, after tossing his head and kicking up his heels in the air, he set off at a



" We occupied the entire day in the dissection of our bears "—P 175."

gallop. Unfortunately, Turk and Bill, whom we sent after him, took the fancy of entering the plantation of the sugar-canes, while the ass had preferred the direction of the bamboos on the right. We began to fear the approach of some wild beast might have frightened the creature, and to think of assembling our fire-arms; but the manner of the dogs on



their return did not furnish any ground for supposing that they recognized the presence of any wild animals in our vicinity. To guard, however, against all danger, I made a large fire with the dried reeds which abounded near us, and having seen the others asleep, I replenished it from time to time till midnight, when, all being still, I crept into the tent to my bed of moss, and slept undisturbed till morning.

The following morning, as no traces of our donkey appeared, which, I hoped, might have been attracted by the

light of our fire and have returned, I selected Jack for my companion, leaving Fritz and Ernest with their mother, and, calling Turk and Bill, we set off to seek the ass. After an hour's fruitless search among the canes, we emerged beyond them, in an extensive plain on the borders of the great bay. The lofty cliffs extended before us, reaching here towards the shore, where they abruptly terminated in a precipitous cliff, apparently within tide-mark. A considerable river flowed into the bay here, and between the river and the rock was a narrow passage, which at high water would be overflowed. We thought it most likely that our ass had passed by this defile; and we accordingly ascended the stream till we found a place where we could safely ford it. Beyond this the soil was soft and sandy; and here we recognized the footprints of the ass, which encouraged us to proceed.

After advancing some way, we recognised many other footprints, evidently of a considerable herd of animals, and some of them much larger than those of the ass. This added to our curiosity, and we resolved to continue our search; we ascended a little hill which had hitherto limited our view, and here a most beautiful prospect opened upon us. With the help of our telescope we saw stretching before us an extensive and luxuriant landscape, but on which no traces of human culture or habitation were apparent. To our right rose the majestic chain of rocks that divided the island, and on our left was a range of undulating hills, dotted with groves of palms; the beautiful stream meandered across the valley like a silver ribbon, bordered by rushes and other aquatic plants. Everything seemed to indicate the absence of human beings. The birds flew fearlessly around us, while our eyes were delighted with magnificent blossoms of tropical vegetation, and with the brilliantly-coloured insects that flitted about them. But, at a distance, we saw some specks, which I concluded were the animals we had first seen, and I resolved to go nearer, in hopes our ass might have joined them. We made towards the spot, and, to shorten the road, crossed a little wood of bamboos, the stalks of which, as thick as a man's thigh, rose to the height of thirty feet. I suspected this to be the giant reed of America, with which the natives supply their canoes with masts. When we had crossed the wood, we suddenly found ourselves face to face with a herd of wild

buffaloes. I was taken completely by surprise; but the herd, which was not numerous, stood gazing at us, apparently equally astonished with ourselves, and without any symptoms of anger. Fortunately the dogs were behind us, so that we had time to take measures for defence. We drew back a little, prepared our arms, and endeavoured to retreat, when the dogs arrived, and, notwithstanding our efforts to restrain them, flew at the buffaloes. Escape was now impossible. The whole herd seemed to prepare themselves for an attack. They pawed the ground and bellowed fiercely, as if exciting each other to combat. The dogs, however, were in no degree intimidated, but, dashing in among the herd, they seized a young buffalo calf, and dragged it to the ground. The mother made at the aggressors, followed by the whole herd, when, just as we seemed in the crisis of our fate, I called to Jack, who had shown the utmost coolness and presence of mind, and we both fired at the same instant. The effect was wonderful. The whole herd stood for a moment as if petrified, and then, wheeling about, they dashed off through the river, and did not pause so long as they were in sight. The dogs still held their prize, and the mother, though wounded by our shot, tore up the ground in her fury, and was just about to make a dash at the dogs with her horns, when a well-directed shot laid her at her length on the ground. I sprang immediately forward, and, discharging a pistol between the eyes, put an end to her life.

All this had been so rapid that we seemed now, for the first time, to breathe. I commended my courageous companion for his great coolness and presence of mind, which had largely contributed to my own self-possession, while I failed not to render thanks to God for our deliverance. The dogs still held the young calf by the ears, it bellowed incessantly, and I feared they would either be injured or lose their prize. I was at a loss how to act, as I was anxious, if possible, to preserve it alive; but Jack, with his usual promptitude, solved the difficulty. He unwound the lasso which he carried round his waist, and, watching his opportunity when the young buffalo flung up his heels, he dexterously threw the ball so as to wind the cord round its hind legs, and then, giving it a sudden jerk, he threw the animal to the ground. I now approached, replacing the lasso by a stronger cord, and used

another to bind his fore-legs loosely. Jack cried victory, and already thought how his mother and brothers would be delighted when we presented it; but that was no easy matter. At last I thought of the method used both in Italy and Spain



to tame the wild bulls, and I resolved to try it, though it was a little cruel. With Jack's assistance, I held the young buffalo's head, and with my clasp-knife I pierced the cartilage of the nose between the nostrils, and passing through this a stout cord, I secured it to a tree. The operation was successful;

and, as soon as the blood ceased to flow, I took the cord, uniting the two ends, and the poor suffering creature, completely subdued, followed me without resistance.

We could not think of altogether abandoning the buffalo we had killed. I therefore cut out the tongue as an especial delicacy, and some of the best parts from the loin. I also carefully skinned the fore-legs, remembering that the American hunters use these skins for boots, being remarkably soft and flexible. We permitted the dogs to feast on the remainder; but while we were enjoying some of the provisions we had brought with us under the shade of a neighbouring tree, we soon saw that they were not to have an undisputed banquet. The air seemed to be filled with vultures and other birds of prey; and, before we left, little remained but the bare skeleton. We employed ourselves, meanwhile, in cutting down some of the gigantic reeds that grew round us. I selected the largest, as they made very useful vessels when separated at the joints. Jack, however, was cutting some of small dimensions, and I asked him jestingly if he was going to make a Pan-pipe to celebrate his triumphal return with the buffalo? I was greatly pleased when he replied that he had not been thinking of his own amusements, but was selecting such as he thought would enable him to make moulds for our candles and candlesticks. I complimented the boy on his thoughtful consideration; and, as the day was far advanced, we collected together our various supplies, and set off on our return. The calf, intimidated by the dogs and galled by the rein, went on tolerably well. We crossed the narrow pass in the rocks, and here our dogs killed a large jackal which was coming from her den in the rock. The furious animals then entered the den, followed by Jack, who saved with difficulty one of the young cubs, the others being immediately killed. It was a pretty little gold-coloured creature, about the size of a cat. Jack petitioned earnestly to have it to bring up, and I made him happy by granting his request.

When I found that the young buffalo no longer made any efforts at escape, I secured another cord to its horns, so as to use the other only as a check. We even ventured, when we got fatigued, to lay our burdens across its back; and it was now so completely subdued that it moved alongside of us without any resistance. Although we were thus enabled to

quicken our pace, it was almost night when we joined our family, and endless were the questions the sight of the buffalo produced, and great was the boasting of Jack the Dauntless. I was compelled to lower his pride a little by an unvarnished statement, though I gave him much credit for his coolness and resolution; and, supper-time arriving, my wife had time to tell me what had passed while we had been on our expedition.

Fritz and Ernest had, with great labour, felled a sago-palm seventy feet high, intending to extract its precious pith; but this they had been unable to accomplish alone, and waited for my assistance. Fritz had also made a beautiful capture in a nest he had discovered in the rocks at Cape Disappointment. It was a superb bird, and though very young, quite feathered. Ernest had pronounced it to be the eagle of Malabar, and I confirmed his assertion. The Malabar or Indian eagle does not grow to a large size, so I made no objection to his desire to keep and tame it. I advised him to try if it could not be trained as a falcon to pursue game. As, however, Jack had already obtained permission to keep the jackal cub, I deemed it right to announce that, if these were to be retained, each must promise to look after his own favourites, as they could not expect their mother to burden herself with such a strange medley of live stock.

We then made a fire of green wood, in the smoke of which we placed the buffalo meat we had brought home, leaving it during the night, that it might be perfectly cured. The young buffalo was beginning to graze, and we gave him a little milk to night, as well as to the jackal. Fritz had taken the precaution to cover the eyes of his eagle, and, tying it fast by the leg to a branch, it rested very tranquilly. We then retired to our mossy beds, to recruit our strength for the labours of another day.

CHAPTER XXII.

SAGO MANUFACTORY.—BEES.

AT break of day we rose, made a light breakfast, and I was about to give the signal of departure, when my wife directed my attention to the enormous sago-palm which the boys had felled with so much difficulty, and the valuable

provision that might be obtained from it with a little trouble. I thought she was right, and decided to remain here another day; for it was no trifling undertaking to split up a tree seventy feet long. The labour, however, seemed well worth spending for such a purpose; in addition to which, it occurred to me that, after the trunk was split up and scooped out, its two halves would make excellent pipes for conveying water from the cascade near Tent House to the garden which my wife had planted there.

Such tools as we had we carried to the place where the tree lay. We first sawed off the head; then, with the hatchet making an opening at each end, we took wedges and mallets, and the wood being tolerably soft, after four hours' labour we succeeded in splitting it entirely. Our next work was to separate the true sago from the refuse, which we dried on a cloth in the sun, and tied up to carry home with us. The rest of the day we spent in loading our cart and collecting everything together for an early start homeward on the morrow. The two halves of the sago-palm were sufficiently light, notwithstanding their unwieldy size, to be placed on the cart; and darkness having by this time set in, we kindled our watch-fires and withdrew for the night.

The next morning the whole caravan began to move at an early hour. The buffalo, harnessed to the cart by the side of the cow, took the place of our truant ass, and began his apprenticeship as a beast of draught. It is true, I led him by the cord in his nose, and thus restrained him whenever he was disposed to deviate from his duty. We returned the same way as we came, that we might carry away the candleberries and elastic gum. Our water-pipes somewhat impeded our progress, and Fritz and Jack were sent on before to cut down such underwood as stood in the way. We reached the candleberry trees without accident, and placed our sacks on the cart. We did not find more than a quart of the caoutchouc-gum; but it would be sufficient for our first experiment, and I carried it off.

In crossing the little wood of guavas, we were disturbed by the violent barking of the dogs, who were before us with Fritz and Jack. I was struck with terror lest they should have encountered some fierce animal, and rushed forward ready to fire. The dogs were endeavouring to enter a thicket,

in the midst of which Fritz declared he had caught a glimpse of an animal larger than the buffalo, with a black, bristly skin. I was just about to discharge my gun into the thicket, when Jack, who had thrown himself on the ground to have a better view of the animal, got up in a fit of laughter. "It is nothing more," said he, "than that perverse old sow, which seems never wearied of playing off her tricks upon us." Half merry and half angry, we now cleared an opening in the thicket, and there discovered the lady lying, surrounded by several little pigs, only a few days old. We were glad to see our old friend so attended, and stroked her. She seemed to recognize and welcome us with a sociable kind of grunting, to which we replied by giving her some potatoes and cassava bread. We were divided in opinion about leaving the young family behind, or carrying the whole off with us; but we decided on leaving them for the present where they were.

At last we reached Falcon's Nest, which we already regarded with all the tender feelings of home. Our domestic animals crowded round us, and noisily welcomed us. I tied up the young buffalo, so as to accustom it to restraint, and also saw that the jackal cub was properly secured. Fritz fastened his eagle to a branch by means of a stout cord long enough to allow it freedom of motion; but having then imprudently removed the bandage from its eyes, it raised its head, erected its feathers, and, before any of us were aware of what it was about, it made a dart at our poor parrot, which was perched on a neighbouring branch, and had struck its talons into it before we could interfere. Fritz was so indignant at the loss of his little favourite, that he would have killed its destroyer forthwith; but Ernest begged he would not be so rash, as parrots were more plentiful than eagles, and it was his own fault for uncovering his eyes: the falconers always keeping their young birds hooded six weeks, till they are quite tamed. He offered to train it, if Fritz would part with it; but this Fritz refused. I told them the fable of the dog in the manger, which would neither let the ox eat of the hay nor eat it himself. The better feelings of Fritz soon prevailed; he begged his brother to teach him the proper method of training the eagle, and offered to present him with his monkey. Ernest then told him that the Caribs subdue the largest birds by making them inhale tobacco-smoke.

Fritz laughed at this; but Ernest produced some tobacco, of which he had found a considerable supply in the sailors' chests. This he burned below the branch upon which the eagle was perched, at first somewhat to his brother's amusement, as he looked upon it as a hoax. The bird, however,



soon became calm and quite motionless. Ernest then replaced the bandage on its eyes, after which he puffed the smoke about its head and nostrils, till it became stupified, and nearly as still as a stuffed bird. The same process, repeated for several days, completely succeeded; and, Fritz acknowledging that his eagle grew tamer every day, the monkey was resigned to Ernest by universal consent.

The next morning we set out early to our young plantation of fruit-trees, to fix props to support the weaker plants. We loaded the cart with the thick bamboc canes and our

tools, and harnessed the cow to it, leaving the buffalo in the stable, as I wished the wound in his nostrils to be perfectly healed before I put him to any hard work. We began at the entrance of the avenue to Falcon's Nest, where all the trees were much bent by the wind. We raised them gently by a crow-bar; I made a hole in the earth, in which one of my sons placed the bamboo props, driving them firmly down with a mallet, and we proceeded to another, while Ernest and Jack tied the trees to them with the long, tough, pliant tendrils of a plant which we found near the spot. This occupied us during the whole day, while our work was enlivened by the conversation suggested by our employment. An inquiry by Fritz, as to whether our fruit-trees were wild, had excited the mirth of his lively but thoughtless brother Jack, who asked him somewhat saucily, if he thought trees were to be tamed like eagles and buffaloes? This led me to explain to them the process of grafting and the culture of fruit-trees.

"Do we know the origin of all these European fruits?" asked the inquiring Ernest. "All our shell fruits," answered I, "such as the nut, the almond, and the chesnut, are natives of the East; the peach, of Persia; the orange and apricot, of Armenia; the cherry, which was unknown in Europe sixty years before Christ, was brought by the pro-consul Lucullus from the southern shores of the Euxine; the olives come from Palestine. The first olive trees were planted on Mount Olympus, and from thence were spread through the rest of Europe; the fig is from Lydia; the plums, with the exception of some natural sorts that are natives of our forests, are from Syria, and the town of Damascus has given its name to one sort, the Damascene, or Damson. The pear is a fruit of Greece; the ancients called it the fruit of Peloponnesus; the mulberry is from Asia, and the quince from the island of Crete."

Our work progressed as we talked thus, and we had soon propped all our valuable plants. It was now noon, and we returned to Falcon's Nest with keen appetites to a pleasant repast of our smoke-dried buffalo beef, accompanied with a dish prepared of the tender leaves of the cabbage palm.

After dinner a subject was renewed which had repeatedly formed a topic of conversation between my wife and me. This was, to substitute a firm and solid staircase for the

ladder of ropes, which was a source of continual fear to my wife, and which certainly was a tedious mode of approach to our lodging in the tree. It is true, that we only had to ascend it to go to bed, but bad weather might compel us to remain in our tree house; we should then require frequently to be descending, and climbing back to it. The impossibility of constructing a flight of steps of such great length had always made me abandon the idea. We had observed, however, that a swarm of bees built their nest in the trunk, and this, coupled with other indications, led us to conceive that it was hollow, in which case the construction of winding stairs within the immense trunk was not likely to prove so difficult a matter. The boys seized the idea with ardour; they sprang up, and climbed to the tops of the roots like squirrels, to strike at the trunk with axes, and to judge from the sound how far it was hollow; but they soon paid dearly for their attempt; the whole swarm of bees, alarmed at the noise made against their dwelling, issued forth, buzzing with fury, attacked the little disturbers, began to sting them, stuck to their hair and clothes, and soon put them to flight. My wife and I had some trouble to stop the course of their uproar and cover their wounds with fresh earth to allay the smart. Jack, whose temper was on all occasions rash, had struck fiercely upon the bees' nest, and was more severely attacked by them than the rest: it was necessary, so serious was the injury, to cover the whole of his face with linen. The less active Ernest got up the last, and was the first to run off when he saw the consequences, and thus avoided any further injury than a sting or two; but some hours elapsed before the other boys could open their eyes, or be in the least relieved from the acute pain that had been inflicted. When they grew a little better, the desire of being revenged on the insects that had so roughly used them had the ascendant in their minds: they teased me to hasten the measures for getting everything in readiness for obtaining possession of their honey. The bees in the meantime were still buzzing furiously round the tree. I prepared tobacco, a pipe, some clay, chisels, hammers, &c. I took the large gourd, long intended for a hive, mounted it on a stand, and covered it with a slanting straw roof to shelter it from the sun and wind; and as all this took more time than I anticipated, we deferred the attack of the

fortress to the following day, and got ready for a sound sleep, which completed the cure of our wounded.

CHAPTER XXIII.

TREATMENT OF BEES—THE STAIRCASE.

NEXT morning I awoke the boys an hour before dawn to assist me in removing the bees to the new abode I had prepared for them. Our first work was to stop with clay all the holes in the tree, with the exception of the one through which the bees were wont to enter; this I plastered up with clay, leaving only room to admit the bowl of my pipe, and then puffed the fumes of tobacco briskly into the nest, to stupify the bees. At first we heard a great buzzing in the hollow, like the sound of a distant storm: the murmur ceased by degrees, and a profound stillness succeeded, when I withdrew my pipe. We now proceeded to cut out a piece of the trunk, about three feet square, immediately below the hole by which the bees entered. Before it was entirely separated, I repeated the fumigation, lest the stupefaction produced by the first smoking should have ceased, or the noise we had been just making revive the bees. As soon as I supposed them lulled again, I separated from the trunk the piece I had cut out, producing as it were the aspect of a window, through which the inside of the tree was laid open to view; and we were filled at once with joy and astonishment on beholding the immense and wonderful work of this colony of insects. There was such a stock of wax and honey, that we feared our vessels would be insufficient to contain it. The whole interior of the tree was lined with honeycombs. I cut them off with care, and put them in the gourds the boys constantly supplied me with. When I had somewhat cleared the cavity, I put the upper combs, in which the bees had assembled in clusters and swarms, into the gourd which was to serve as a hive, and placed it on the plank I had purposely raised; I then descended with the rest of the honeycomb, and filled a cask with it, which I previously washed in the stream; this we covered with sail-cloth and planks, lest the bees, attracted by the smell, should come to claim their own. We left out some comb for a treat at dinner, and my wife carefully put by the

rest. To prevent the bees from returning to their old abode, we placed some burning tobacco in the hollow of the tree, the smell and fumes of which drove them from the tree when they wished to enter; and the queen bee having fortunately been removed with the remainder to the new hive, they settled quietly, after a time, in their new habitation. We then carefully separated the wax from the honey, straining off the latter into the cask, in a pure and very attractive state, while the wax was laid aside in a solid cake to be used along with our vegetable wax for our domestic manufactures. I had been surprised that the numbers of bees occupying the trunk of the tree should find room in the gourd, till I perceived the clusters upon the branches, and I thence concluded a young queen was among each of them. In consequence, I procured another gourd, into which I shook them, and placed it by the former; thus I had the satisfaction of obtaining, at an easy rate, two fine hives of bees in activity.

We now proceeded to examine the interior of the tree. I took a long pole, and tried the height from the window I had made, and tied a stone to a string to sound the depth. To my surprise, the pole penetrated without resistance to the very branches where our dwelling was, and the stone went to the roots. It was entirely hollow, and it was obvious, therefore, that this huge tree, like the willow of our country, derives all its nourishment through the bark, as, notwithstanding its hollow trunk, it exhibited every appearance of the most vigorous luxuriance. I determined to begin our construction in its capacious hollow that very day. We began by cutting a doorway, on the side facing the sea, of the size of the door we had brought from the captain's cabin, with its framework, thus securing ourselves from invasion on that side. We then cleansed and perfectly smoothed the cavity, fixing in the centre the trunk of a tree, about twenty feet in length and a foot thick, completely stripped of its branches, in order to carry my winding staircase round it. We had prepared, the evening before, a number of boards from the staves of a large barrel, to form our steps. By the aid of the chisel and mallet, we made deep notches in the inner part of our tree, and corresponding notches in the central pillar; I placed my steps in these notches, riveting them with large nails; I raised myself in this manner step after step, but

always turning round the pillar, till we got to the top. A second, third, and fourth trunk was fixed upon the first, and firmly sustained with screws and transverse beams, and finally we reached our branches, and terminated the staircase on the level of the floor of our apartment. To render it more solid, I filled up the spaces between the steps with plank, and also placed ropes down the sides to form a handrail. Towards different points, I made openings; in which were placed the windows taken from the cabin, which gave light to the interior, and favoured our observations outside. The construction of this flight of steps formed our principal occupation for some weeks. We did not, however, labour at it uninterruptedly, nor in such a way as to convert our work into an oppressive toil. Different occupations relieved us from time to time, and various domestic incidents lightened and diversified our proceedings.

A few days after we had begun our stair, Bill gave birth to six puppies; but the number being too large for our means of support, I selected the most vigorous-looking male and female, and drowned the rest; the little jackal being placed with the two, Bill granted it the same privileges as her own offspring. A few days later, the two she-goats gave us two kids, and our ewes five lambs, so that our flocks were in no danger of disappearing. For fear these useful animals should take it into their heads to stray from us, as our unfaithful ass had done, we tied round their necks some small bells we had found on the wreck, intended for trading with the savages, and which would always put us on the track of the fugitives.

The training of the young buffalo also supplied us with occupation in leisure hours. Through the incision in his nostrils, I had passed a small stick, to the ends of which I attached a strap. This formed a kind of bit, after the fashion of those of the Hottentots; and by this I guided him as I chose, though not without much rebellion on his part. Finding that I thus had him completely under control, I resolved to break him in for riding as well as drawing. At first I made a point of leading him while one of the boys mounted, but by and by we made a saddle for it, and all the boys tried in turn to mount and ride our singular steed. He went with great swiftness, and was at first difficult to manage, but we not only acquired greater skill by practice, but the animal grew more



"For a month the ostrich was yoked between the bull and buffalo."—P 180

tractable and docile, and, being treated with kindness, became familiar with all of us.

In the midst of this, Fritz did not neglect his eagle; he daily shot some small birds, which he gave it to eat, placing them sometimes betwixt the buffalo's horns, sometimes on the back of the great bustard or the flamingo, or on a board, or at the end of a stick, in order to teach it to pounce like a falcon upon other birds. He taught it to perch on his wrist whenever he called or whistled to it; but some time elapsed before he could trust it to soar without securing its return by a long string, apprehending its bold and wild nature would prompt it to take a distant and farewell flight from us. Our whole company, including even the phlegmatic Ernest, was infected with the passion of instructing animals. The monkey having become his exclusive property, he resolved to teach it some more useful occupation than merely amusing by its mimicry. He and Jack made a little hamper of rushes, very light: they put three straps to it, two of which passed under the fore and one between the hind legs of the animal, and were then fastened to a belt in front, to keep the hamper steady on the back of the mischievous urchin. This was at first resisted with every demonstration of dislike, but, as there was no escape, the monkey submitted; the hamper was left on day and night, and being supplied with favourite morsels frequently dropped into it, he learned at length even to put it on himself. Thus equipped, Ernest taught him to mount the cocoa-nut trees, and others of the lofty palms, for such fruit as he wanted, and thus, in a short while, from being the idlest, Knips became one of the most useful of our dependents. He learned, however, to look on Ernest as his especial master, and to obey him implicitly, being controlled alike by feelings of love and fear. Jack was not so successful with his jackal; for, though he gave him the name of "The Hunter," yet, for the first six months, the carnivorous animal chased only for himself; and if he did bring any thing to his master, it was only the skin of the animal he had just devoured; but I charged him not to despair, and he continued zealously his instructions.

One of my minor occupations during this period was the manufacture of candles. By means of mixing the bees' wax with that obtained from the candle-berry, and by using cane moulds, which Jack first suggested to me, I succeeded in

giving my candles the roundness and polish of those of Europe. The wicks gave us most trouble, as we had no cotton. After various experiments I found the pith of a species of elder, which formed a very good substitute. I next set about my caoutchouc shoemaking, while I encouraged the boys to try their ingenuity in making flasks and cups, by covering moulds of clay with the gum, as I had explained to them. I adopted an effectual method of securing a pair of well-fitted boots. Taking a pair of my old worsted stockings, I filled them with sand, and covered this with a layer of clay, which I dried in the sun. To this I attached a stout sole of buffalo leather, studded with tacks, which helped to fasten it to the stocking. I then poured the liquid gum over this so as to make it adhere to the stocking. Then, with a brush of goats' hair, I covered it with layer upon layer of the elastic gum, till I thought it sufficiently thick, and when the whole was dry and firm, I shook out the sand, broke off the hardened clay, and found myself in possession of a strong flexible pair of waterproof boots, which fitted me as comfortably as the most finished workmanship of a European shoemaker. My boys were wild with joy, and all begged for a pair; but I wished first to try their durability, compared with those of buffalo leather. I therefore made a pair for Fritz from the skin which I had taken from the buffalo's legs, only employing the caoutchouc to fill up the seams. They cost me, however, much more labour, and proved, after all, so clumsy and unsatisfactory a job, that Fritz got laughed at by his brothers in attempting to run in his awkward and mis-shapen boots.

We had also been engaged in the construction of our fountain, which afforded a perpetual source of pleasure to my wife, and indeed to all of us. We raised, in the upper part of the river, a sort of dam, with stakes and stones, from whence the water flowed into our channels of the sago-palm, laid down a gentle declivity nearly to our tent, and there it was received in the tortoiseshell basin, which we had elevated on stones to a certain height for our convenience; and it was so contrived that the redundant water passed off through a cane pipe fitted to it. On two crossed sticks were placed the gourds that served us for pails, and thus we had always the murmuring of the water near us, and a plentiful supply of it, always pure

and clean, which the river, troubled by our water-fowl and the refuse of decayed leaves, could not always give us. The only inconvenience of these open channels was, that the water was liable to be somewhat heated from exposure to the sun; but this I hoped to remedy in time, by employing, instead of the uncovered conduits, large bamboo canes buried in the earth. In the meantime, we were grateful for this new acquisition, and Fritz, who had suggested the notion, received his tribute of praise from all.

CHAPTER XXIV.

THE WILD ASS.—THE HEATH-FOWL'S NEST.

ONE morning, as we were engaged in giving the last finish to our staircase, we were disturbed by sounds of a most unwonted character, which proceeded from the neighbouring wood. I dreaded the attack of some beasts of prey; and the dogs seemed, by their manner, to be preparing for an assault. I therefore put their spiked collars and side-guards on them, and directed the boys to get our fire-arms ready, and prepare for a vigorous defence, while I assembled our cattle beneath the tree, so as to have them within range, and covered by our fire. The boys looked out in eager expectation; and Jack made no concealment of his hope that he would see a lion at last, vowing that nothing would please him better than to obtain a near view of the king of beasts.

The strange and discordant noises were soon renewed, and almost close to us. Fritz had been listening with earnest attention to the sounds that alarmed us while his brothers were discussing their cause, when suddenly, throwing down his gun, he exclaimed, after a hearty laugh, "It is our fugitive, the ass, come back to us, and chanting his song of joy on his return." I listened, and a fresh roar, in sounds unquestionable, raised loud peals of laughter amongst us; and then followed the usual train of jests and mutual banter of the alarm we had one and all betrayed. Shortly after, we had the satisfaction of seeing among the trees our old friend Grizzle, moving towards us leisurely, and stopping now and then to browse; but, to our surprise and delight, he was not alone. A fine young onagra, or wild ass, was at his side,

which I conceived a strong desire to possess; though all naturalists have declared it impossible to tame this elegant creature, yet I determined to make the attempt.

I descended from the tree, taking Fritz with me, and giving strict orders to the rest to remain behind and make not the slightest noise. I then got ready, as soon as possible, a long cord, one end of which I secured to the root of a tree, while I made at the other end a running noose, held open by a slight twig, which would fall out as soon as the animal's head entered, while any attempt to escape would only draw the noose closer. I also prepared a piece of bamboo about two feet long, which I split at the bottom, and tied fast at top, to form a pair of pincers for the nose of the animal. Fritz attentively examined my contrivance, without seeing the use of it. Prompted by the impatience of youth, he took his lasso, and proposed aiming at the wild ass with it, which he said was the shortest way of proceeding. I declined adopting this Patagonian method, fearing the attempt might fail, and this beautiful creature avail itself of its natural velocity to evade us beyond recovery. I therefore told him my project of catching it in the noose, which I gave him to manage, as being nimbler and more expert than myself. The two asses drew nearer and nearer to us. Fritz, holding in his hand the open noose, moved softly on from behind the tree where we were concealed, and advanced as far as the length of the rope allowed him. The onagra started on perceiving a human figure; it sprang some paces backward, then stopped, as if to examine the unknown form; but as Fritz now remained quite still, the animal resumed its composure, and continued to browse. Soon after, he approached the old ass, hoping that the confidence that would be shown by it would raise a similar feeling in the stranger. He held out a handful of oats mixed with salt; our ass instantly ran up to take its favourite food, and greedily devoured it. Its companion followed, sniffing the air, and pausing with a startled look at every few steps, till it at length drew so near that Fritz, who was watching his opportunity, threw the noose, and the prize was ours. Startled by the motion of his hand, it made off immediately; but the cord being round its neck, it was drawn so tight by the rapid motion of the affrighted animal, that it was thrown to the ground and almost strangled. I hastened forward imme-

diately, and, after slipping our ass's halter over its head, and getting the bridle between its teeth, I relaxed the cord sufficiently to let it recover its breath. I then placed the split bamboo on its nose, drawing a string tightly at the open end, so as to compress it, much in the same way that blacksmiths do with a young horse when shoeing it for the first time. I then took off the noose, and tied the halter by two long cords to the roots of two separate trees, and left him to recover himself.

By this time, the rest of the family had collected to admire this noble animal, whose graceful and elegant form, so superior to that of the ass, raises it almost to the dignity of a horse. After a while it rose, and stamped furiously with its feet, trying to release itself; but the pain which the pincers gave it whenever it threw up its head forced it to moderate its violence, and, after a few ineffectual struggles, it lay down again. Fritz and I now tightened the opposite ends of the rope which we had secured to the halter, so as to allow it as little room to move as possible, while it enabled us to approach it with less danger. We also guarded against Master Grizzle playing truant again, and tied him fast with a new halter, confining his fore-legs with a rope. I then fastened him and the onagra side by side, and put before both plenty of good provender to solace their impatience of captivity.

We had now abundant work before us in the attempt to train the onagra. The boys confidently anticipated success, and reflected with satisfaction on the temporary loss of our donkey, which had led to our securing such a prize. I was less confident of success, but resolved to leave no means untried for its attainment.* I did not conceal that we should have many difficulties to encounter in taming it, though it seemed very young, and not even to have reached its full growth. But I was inclined to think proper means had not been hitherto adopted, and that the hunters, almost as savage as the animals themselves, had not employed sufficient art and patience, being probably unconscious of the advantages of either. I therefore determined to resort to all possible measures. I let the nippers remain on its nose, which appeared to distress him greatly, though we could plainly perceive the good effect in subduing the creature; for without them no one could have ventured to approach him. I took them off,

however, at times when I gave it food, to render eating easier, and I began, as with the buffalo, by placing a bundle of sail-cloth on its back to inure it to carry. When accustomed to the load, I strove to render the beast by degrees still more docile, by hunger and thirst; and I observed with pleasure that when it had fasted a little, and I supplied it with food, its looks and actions were less wild. As it still continued, however, to be liable to paroxysms of fury, I made a muzzle so as to prevent it from biting, and fastened its legs by a stout cord, attached to them so loosely as to admit of its walking, without its being able to rear or kick behind. By this means we were able to approach it without danger, and it gradually grew so familiar with us that it suffered us to stroke and handle it without evincing impatience or displeasure. I continued for weeks to pursue, with the most persevering patience, every means I could think of for subduing this beautiful, but wild and fierce animal. At length it seemed to be so far accustomed to subjection, that I resolved to try to mount it. I put the strongest bit we had in its mouth, and retained the cords on its legs, so as to restrain its motions; but, notwithstanding this precaution and every preceding means, it proved as fierce and unruly as ever, whenever it obtained any unusual degree of freedom. The monkey, who was first put on its back, held on pretty well by clinging to its mane, from which it was suspended as often as the onagra furiously reared and plunged; it was, therefore, for the present impracticable for either of my sons to get upon it. The perverse beast baffled all our efforts, and the perilous task of breaking it was still to be persevered in with terror and apprehension. I sometimes thought of abandoning the hopeless attempt of taming it, and restoring it to liberty. I remembered, however, one expedient which I had read of, as resorted to by the natives of South America under similar circumstances. I watched a favourable opportunity, and leaping on the back of the onagra, as it was standing with head erect and ears thrown back, I seized the long ear of the affrighted animal between my teeth and held it till I had pierced it through; instantly it stood almost erect on its hind feet, motionless and as stiff as a stake; it soon lowered itself by degrees, while I still held its ear between my teeth. At last I ventured to release him; he made some leaps, but soon

subsided into a sort of trot, I having previously placed loose cords on his fore legs. From that time we were his masters ; my sons mounted him one after another ; they gave him the name of *Lightfoot*, and never animal deserved his name better. As a precaution, we kept the cord on his legs for some time ;



and as he never would submit to the bit, we used a snaffle, by which we obtained power over his head, guiding him by a stick, with which we struck the right or left ear, as we wished him to go. Now and then I mounted it myself, and not without an emotion of pride at my success in subduing an animal that had been considered by travellers and naturalists as absolutely beyond the power of man to tame. Great was my gratification when I at length saw Fritz leap on the back of this graceful animal, freed from all its restraints, drive

along our avenue like lightning, and gallop about with it, guiding it and leading it back, completely obedient to his will.

During the time devoted to the training of Lightfoot, our poultry-yard had received considerable accessions. A triple brood of our hens had given us a crowd of little feathered beings: forty of these at least were chirping and hopping about us, to the great delight of my wife. Some we kept near us, while others were allowed to colonize in the woods, where we could find them as they were wanted for our use. This increase of our poultry reminded us of an undertaking we had long thought of, and was not in prudence to be deferred any longer; this was the building, between the roots of our great tree, covered sheds for all our bipeds and quadrupeds.

The rainy season, which is the winter of this climate, was drawing near; and, to avoid losing most of our stock, it was requisite to shelter it. We began by making a roof above the vaulted roots of our tree, and employed bamboo-canes for the purpose; the longest and stoutest were used for the supports, like columns; the slighter ones, bound together closely, formed the roof itself. The intervals we filled up with moss and clay, and spread over the whole a thick coat of tar, so as to make it completely water-tight. I then made a railing round it, which gave the appearance of a pretty balcony, under which, between the roots, were various stalls, sheltered from rain and sun, that could be easily shut, and separated from each other by means of planks nailed upon the roots; part of them were calculated to serve as a stable and yard, part as a store-room, &c., and as a hay-loft, to keep our hay and provisions dry in. Our dairy, larder, and dining-room were all united under one roof. This occupied us some time, as it was necessary to fill our store-room before the bad weather came; and our cart was constantly employed in bringing useful stores.

One afternoon, as we were returning with the cart loaded with an abundant supply of potatoes, which the ass and the buffalo were drawing together, as there was still some time before evening, I advised my wife to go home with the two youngest boys, whilst I went round by the wood of oaks with Ernest and Fritz, to gather as many sweet acorns as we could

find room for. Ernest, as usual, had his monkey on his shoulder, while Fritz was mounted on his favourite Lightfoot. On arriving at the wood; we tied the onagra to a tree, and all three set to work to fill a sack with the fallen acorns, when we were startled by the cries of birds and a loud flapping of wings, and we concluded that a sharp conflict was going on between Master Knips and the inhabitants of the bushes from whence the noise came. Ernest went to see what was the matter, and we soon heard him calling out, "Be quick! A fine heath-fowl's nest full of eggs; Knips wants to make a meal of them, and the mother is beating him."

Fritz ran up directly, and speedily secured the two beautiful birds; the cock being precisely similar to the one he had formerly killed. Ernest had had enough to do to hold in the rebellious monkey; but he now filled his hat with the eggs, while I helped Fritz to tie the legs and wings of the birds. Ernest was overjoyed to carry the nest and eggs for his dear mamma. The monkey had served us well on this occasion; for the nest was so hidden by a bush with long leaves, of which Ernest held his hand full, that, but for the instinct of the animal, we could never have discovered it. These long, sharp-pointed leaves Ernest intended for Francis, to serve as little toy-swords.

It was now time to think of moving homeward; my two sons filled the sack with acorns, and put it on Lightfoot. Fritz mounted, Ernest carried the eggs, and I took charge of the two fowls. We were all delighted with the good news we had to carry home; and Fritz, anxious to be the first, set off at a gallop. My wife placed the valuable eggs under a brooding hen, as the female bird was too shy and frightened to hatch them in captivity. She was put into the parrot's cage, and hung up in the room, to accustom her to society. In a few days, we had the great satisfaction of seeing the brood of wild chickens hatched, and running about after their foster-mother. They ate with avidity of the bruised acorns soaked in milk, and the other kinds of food which my wife was accustomed to give to our tame poultry. As they grew up, I plucked out the large feathers of their wings, lest they should naturally take flight; but they and their real parent gradually became so domesticated that they daily

accompanied our feathered stock in search of food, and regularly came back at night to the roost I had prepared for them in one of the lofts erected under our tree.

CHAPTER XXV.

FLAX.—THE RAINY SEASON.

FRANCIS, for a short time, was highly amused with his sword-leaves, and then, like all children, who are soon tired of their toys, he grew weary of them, and they were thrown aside. Fritz, happening to pick up some of these withered leaves, remarked how pliable they had become, and advised his brother to plait them into a whip to drive the goats and sheep with, for the little fellow was the shepherd. He was pleased with the idea, and began to split the leaves into strips, which Fritz plaited together into very good whiplashes. As they were working, I saw with pleasure the flexibility and strength of the bands. I examined them more closely, and was delighted to observe that they split into long tenacious fibres, so that I had little doubt we had thus accidentally discovered a plant of the same nature as the well-known *Phormium tenax*, or flax-plant of New Zealand. This was a valuable discovery in our situation, and which, when I communicated it to my wife, almost overwhelmed her with joy. "This," said she, "is the most useful thing you have found; lose not a moment in searching for more of these leaves, and bring me the most you can of them. I will make you stockings, shirts, clothes, thread, ropes—in short, give me flax, looms, and frames, and I shall be at no loss in the employment of it." I could not help smiling at the vivacity of her imagination, roused at the very name of flax; but there was still great space between the leaves lying before us and the linen she was already sewing in idea. The boys, however, rejoiced in such an opportunity of gratifying their mother's wishes. Fritz was presently mounted on Lightfoot, and Jack on the buffalo, and both set off at their greatest speed to procure supplies.

Whilst we waited for these, my wife, all life and animation, explained to me all the machines I must make to enable her to spin and weave, and make linen to clothe us from head to

foot ; her eyes sparkled with delight as she spoke, and I promised her all she asked. In a short time our foraging party returned, each bringing a good load of the precious plant, which they laid at the feet of their mother with undisguised satisfaction. She gave up everything to begin her preparation. The first operation necessary was to steep the flax, which is usually done by exposing it in the open air, in the rain, the wind, and the dew, so as, in a certain degree, to dissolve the plant, rendering the separation of the fibrous and ligneous parts more easy. It can then be cleaned and picked for spinning. But, as the vegetable glue that connects the two parts is very tenacious, and resists for a long time the action of moisture, it is often advisable to steep it in water ; and this, in our dry climate, I considered most expedient. My wife coincided with me ; she proposed to soak the flax in Flamingo Marsh, and to begin by making up the leaves in bundles, as they do hemp in Europe. This employed us during the remainder of the day. Next morning, the ass was yoked into the smaller cart, which was loaded with these bundles, and the whole cavalcade set off for the marsh with shovels and pickaxes. We there untied our bundles, and spread them in the water, pressing them down with stones, and leaving them in this state till it was time to remove and set them in the sun to dry, and thus render the stems soft and easy to peel. In the course of this work, we noticed with admiration the instinct of the flamingoes in building their cone-shaped nests above the level of the marsh, each nest having a recess in the upper part, in which the eggs are securely deposited, while the contrivance enables the female to sit with her legs in the water ; the nest is of clay, and so solid that they resist the water till the young are able to swim.

In a fortnight the flax was ready to be taken out of the water. We spread it on the grass in the sun, where it dried so rapidly that we were able to take it home the same evening to Falcon's Nest, where it was put by till we had time to make the beetles, wheels, reels, carding-combs, &c., required by our chief for the manufacture. It was thought best to reserve this task for the rainy season, the premonitory symptoms of which already warned us to lay in our stock of provisions for ourselves and the animals. We laboured incessantly.

santly with all the spirit of a harvest-home, bringing in waggon-loads of potatoes, manioc-root, sugar-canes; cocoanuts, sweet acorns, fodder for the cattle, and wood. We profited by the last few days to sow the wheat and other remaining European grains, taking advantage of the ground which we had broken up in removing the potato and cassava-roots. We also planted a considerable area with sugar-canes, and laid out some plantations of the most valuable palms in the immediate vicinity of Falcon's Nest. These various proceedings kept us in constant employment; time was so precious that we did not even make regular meals, and limited ourselves to bread, cheese, and fruits, in order to shorten them, to return quickly to our work, and despatch it before the bad season should set in. Already various sudden showers warned us that the winter of the tropics was at hand; the weather became much more variable, and the nights exceedingly chilly. With all our exertions, however, the change came sooner than we had calculated on,* and before we were quite prepared for it. The winds raged through the woods, the sea roared, mountains of clouds were piled in the heavens. They soon burst over our heads, and torrents of rain fell night and day, without intermission; the rivers swelled till their waters met, and turned the whole country around us into an immense lake. Fortunately, the site we had chosen was sufficiently elevated to be beyond the flood, and our group of trees accordingly remained like a little island in the midst of the general inundation. We soon found, however, that our elevated abode was altogether unsuited for a tropical winter; the rain entered it on all sides, and the hurricane threatened every moment to carry away the apartment and all that were in it. We were forced, therefore, to remove to an apartment in the erection we had made at the foot of the tree for our animals and stores. We were painfully crowded in the small space; the neighbourhood of the animals, and the various offensive smells, made our retreat almost insupportable; in addition, we were half stifled with smoke whenever we kindled a fire, and inundated with rain when we opened a door. For the first time since our disaster, we sighed for the comforts of our old Swiss home; but action was necessary, and we set about endeavouring to amend our condition.

In this state of things our staircase proved of the greatest value; the upper part of it was filled with numerous articles that gave us room below; and, as it was lighted by windows, my wife often worked there, seated on one of the steps, with her little Francis at her feet. We crowded our beasts a little more, and gave a current of air to the places they had left. I placed outside the inclosure the animals of the country, which could bear the inclemency of the season, and every morning we sent out all the animals that could stand the exposure to the wet. That we might not lose them altogether, we tied bells round their necks; Fritz and I sought and drove them in every evening that they did not spontaneously return. We generally got wet to the skin during the employment, which induced my wife to contrive for us a kind of clothing more suitable for the occasion. She took two seamen's shirts from the chest, and with some pieces of old coats she made us a kind of cloth hoods, joined together at the back, and well-formed for covering the head entirely. We dissolved some elastic gum, which we spread over the shirts and hood; and the articles thus prepared answered every purpose of water-proof overalls, that were of essential use and comfort to us. We made as few fires as possible, as, fortunately, it was never very cold, and we had no provisions that required a long process of cookery. We had milk in abundance, smoked meat and fish, the preserved ortolans and cassava-cakes.

The care of our animals occupied us great part of the morning; then we prepared our cassava, and baked our cakes on iron plates. I had fixed a glass window in the wall, but the gloom of the weather, and the over-shadowing branches of the trees, greatly abridged our light, and made night come on early. We then lighted a candle, fixed in a gourd on the table, round which we were all assembled. My thrifty wife laboured with her needle, mending the clothes; I wrote my journal, which Ernest copied, as he wrote a beautiful hand; Fritz and Jack amused themselves by drawing from memory the plants and animals which had most struck their observation; while one and all contributed to teach little Francis to read and write. We read the lessons from the Bible in turns, and concluded the evening with devotion. We then retired to rest, content with ourselves and with our innocent and

peaceful life. Our kind housekeeper often made us a little feast of a roast chicken, a pigeon, or a duck, from our poultry-yard, or some of the thrushes we had preserved in butter, which were excellent, and welcomed as a treat to reward extraordinary toil. Every four or five days we had



fresh butter made in the gourd-churn ; and this, with some fragrant honey spread on our manioc-cakes, formed a collation that would have been a treat to European epicures. The remains of our repast was always divided among our domestic animals. We had now four dogs, the jackal, the eagle, and the monkey, to feed ; they relied with just confidence on their respective masters, who certainly would have deprived themselves to supply the wants of their helpless dependents ; but if the buffalo, the onagra, and the swine, had not been



"Making a slight incision in the skin and inserting the point of the syringe into this, I tied the skin tightly round it, and gradually forced the air inwards, blowing out the kangaroo into a shapeless mass."
—P. 186.

able to provide for themselves, we must have killed them, for we had no food for them. Their supply of hay and leaves gone, we fed the European cattle on the sweet acorns and roots which had been laid up for ourselves. They not only took this novel food with great relish, but it gave a very pleasant flavour to the milk, of which we had now an abundant supply from the ewes and the goats, as well as from the cow.

In the course of our discomforts, it was unanimously resolved on, that we would not pass another rainy season exposed to the same evils. Even my good, gentle wife lost temper sometimes under the irritating inconveniences we were perplexed with, and insisted more than any of us on the plan of building elsewhere a more spacious winter residence; stipulating, however, that we should return to our tree in summer. The discussion of the various projects for our future accommodation sufficed to beguile our thoughts from present privations. We consulted a great deal on this matter. Fritz quoted Robinson Crusoe, who had cut a dwelling out of the rock, which sheltered him in the inclement season. The reference to Crusoe led us to reflect with gratitude and thanksgiving on our own more fortunate lot in being thus preserved for each other's aid and comfort, instead of being abandoned to such solitude as he endured. The final result of our deliberations was, as soon as the weather should allow us, to go and survey the rocks round Tent House, and to examine whether any of them could be excavated for our purpose.

The last work of the winter was, at my wife's incessant request, a beetle for her flax and some carding-combs. I filed large nails till they were round and pointed; I fixed them at equal distances in a sheet of tin, and raised the sides of it like a box; I then poured melted lead between the nails and the edge to fix them more firmly. I nailed this tin on a board, and the machine was fit for work. My wife was impatient to begin her manufacture; and the drying, peeling, and spinning her flax became from this time a source of inexhaustible delight.

CHAPTER XXVI.

SPRING.—THE SALT MINE.

I CAN hardly describe our delight when, after many days of unbroken gloom, the sky began to clear, the winds to be lulled, and the waters to subside. The sun dispersed the dark clouds of winter, and spread its vivifying rays over all nature; the air became mild and serene. We rapidly forgot, in new sensations, the embarrassments and weary hours of the wet season, and looked forward to the toils of summer as enviable amusements.

Our plantations of young trees were thriving vigorously, and the seed which we had sown was shooting through the moist earth. The air was perfumed with the odour of countless flowers, and lively with the songs and cries of hundreds of brilliantly-plumaged birds, all busy building their nests. This was really spring in all its glory.

Our first work was to restore our summer lodging in the tree, which the rain and the scattered leaves had greatly deranged, and in a few days we were able to inhabit it again. My wife immediately began with her flax. While my sons were leading the cattle to the fresh pastures, I carried the bundles of flax into the open air, where, by heaping stones together, I contrived an oven sufficiently commodious to dry it well. The same evening we all set to work to peel, beat, and comb it. My carding machine fully answered the purpose. I took this laborious task on myself, and drew out such distaffs, full of long soft wax, ready for spinning, that my wife was overjoyed, and begged me to make her a wheel, that she might commence.

At an early period of my life I had practised turnery for my amusement; now, however, I was unfortunately destitute of the requisite utensils, but, devoting all my ingenuity and perseverance to the task, I at length completed two machines, which, though somewhat rude and clumsy, answered the purpose. My wife, indeed, was delighted with them, and set to work to spin with such eagerness, that she seemed to grudge the time required for a walk, or even the interruptions which the daily preparation of the family meals made on her time. She employed Francis to reel off the thread as she spun it,

and she would gladly have engaged the whole family in expediting her operations ; but the boys rebelled at the effeminate work, except Ernest, whose indolent habits made him prefer it to more laborious occupation.

One of our first proceedings was an excursion to Tent House, to ascertain if it had suffered from the winter's rains. We found our old dwelling in a deplorable state. The storm had overthrown the tent, carried away some of the sail-cloth, and injured our provisions so much, that great part was good for nothing, and the rest required to be immediately dried. Fortunately our beautiful pinnacle had not suffered much—it was still safe at anchor ; but our tub-boat was in too shattered a state to be of any further service. What excited the greatest regret in my mind was the discovery that two out of the three barrels of powder left in the tent were rendered wholly useless. The sight of such ravages redoubled the desire of all to provide winter quarters, where we should no longer be exposed to such irreparable losses. Still I had small hope from the gigantic plan of Fritz or the boldness of Jack. I could not be blind to the difficulties of the undertaking. We looked along the surrounding cliffs in the vain hope of seeing any opening that would even diminish the labour of excavation. However, it was necessary to try to contrive some sort of cave, if only for our gunpowder. After examining carefully the whole neighbouring rocks, I selected a perpendicular cliff, which was situated at a greater elevation, and commanded a beautiful view of the whole bay and the two banks of the river. It was altogether a much more attractive spot than Tent House. I marked out with chalk the dimension of the entrance I wished to give to the cave, then my sons and I took our chisels, pickaxes, and hammers, and began to try what impression could be made on the rock.

We were resolved not to be easily daunted ; but the rock was hard, and the labour such as we were little accustomed to ; and when evening arrived we were utterly exhausted, and yet had only penetrated a few inches from the surface. We returned, however, on the morrow, and renewed our work day after day. At the end of five or six days, when the surface of the rock was removed, we found the stone easier to work ; it seemed calcareous, and finally only a sort of hardened clay, which readily gave way to our tools ; and

we began to hope. After a few days' more labour, we found we had advanced about seven feet. Fritz wheeled out the rubbish, and formed a sort of terrace with it before the opening: while I was working at the higher part, Jack, as the least, worked below. One morning, as he was hammering away at a long crowbar, in the hope of loosening a large mass



of rock, he suddenly shouted, "Papa! papa! I have got through!" "Through what?" said I, supposing the boy was jesting; "not through your hand, I hope!" "No, no, papa," said he, "through the mountain!" On this Fritz set up a loud laugh. "Why not say through the world at once! You should have pushed on your tool boldly till you reached Europe, which they say is under our feet. I should have been glad to peep into that hole." Meanwhile, however, Fritz had been examining the object of his brother's excla-

mations, and, dropping his bantering tone, said, "Do come hither, father; this is really extraordinary; his iron bar seems to have got to a hollow place; it can be moved in every direction." I approached, and found, on moving about the crowbar, that it could be pushed to its full length with ease, while the rubbish it displaced seemed to fall into a hollow, apparently very little below the level we were working



on. On forcing away a considerable piece of rock, and inserting a long pole into the hole, it became evident that we had come upon a cavity of considerable size. My boys were now eager to break away the rock and ascertain its full extent, and to enter immediately; but this I strictly forbade, for, as I leaned forward to examine it through the opening, a rush of mephitic air gave me a sort of vertigo. "Beware, my dear children," said I in terror, "of entering such places,

for the loss of life might be the consequence." I explained to them that, under certain circumstances, carbonic acid is frequently accumulated in caves or grottoes, rendering the air unfit for respiration; producing giddiness of the head, fainting, and eventually death. I directed them to collect materials for kindling a fire; I took some dried grass, and setting it in a blaze, threw it into the hole, where it was immediately extinguished. Bundles of dried moss were now lighted by the boys and thrust blazing into the recess, but always with the same effect. It was obvious, therefore, that more effectual means must be resorted to.

I recollected that we had brought from the vessel a chest that was full of grenades, rockets, and other fireworks, which had been shipped for the purpose of making signals as well as for amusement. I despatched Fritz for these; and, after throwing in some grenades, which made a most singular and loud reverberating noise, we lighted a few rockets, and fired them successively into the cavern; they flew round like fiery dragons, disclosing to us the vast extent of the cave. A shower of stars, which concluded our experiment, made us wish the duration had been longer. It seemed as if troops of winged genii, carrying each a lamp, were floating about in that enchanted cavern. After having played off our fireworks, and waited till all was once more in darkness, I again threw in some bundles of lighted straw, which now blazed freely, and showed that all danger from impure air was removed; but, for fear of deep pits, or pools of water, I would not venture in without lights. I therefore despatched Jack, on his buffalo, to report this discovery to his mother, and bring all the candles that were left. I purposely sent Jack on the errand, for his lively and poetic turn of mind would, I hoped, invest the grotto with such charms, that his mother would even abandon her wheel to come and see it. Delighted with his commission, Jack leaped upon his buffalo, and galloped off with an intrepidity that made me almost tremble for his safety. During his absence, Fritz and I busied ourselves in enlarging the entrance and removing the rubbish, so as to afford a reader access to it. We had just finished when we heard the sound of wheels crossing the bridge. The large car drawn by the cow and ass was lumbering along with all the speed that the unequally yoked pair could be

induced by their driver, Ernest, to muster, while Jack came prancing along before them astride on the buffalo, which he rode with the most fearless confidence. So soon as Jack saw the car, with his mother and brothers, fairly over Family Bridge, he came forward on the gallop; and when he got to us, jumped off the beast, shook himself, took a spring or two from the ground, and thus refreshed ran up to the car to help his mother out.

I immediately lighted some of the tapers, giving one to each, with a spare candle and flint and steel in our pockets. Thus provided I led the way, my sons followed me, my wife and little Francis bringing up the rear. We had not gone on above a few steps when we stopped, struck with wonder and admiration; all was glittering around us. It seemed as if the walls and roof of the cavern were set with diamonds, which sparkled under the light of our tapers as if the whole were an illuminated temple. Huge crystal pendants hung suspended from the roof, or rose in masses from below, forming altars, pillars, and colonades, and giving to the whole an aspect of some fairy palace of romance.

When we were a little recovered from our first astonishment, we advanced with more confidence. The grotto was spacious, the floor smooth, and covered with a fine white sand, as if purposely strewed, and so dry, that I could not see the least mark of humidity anywhere. From the appearance of the crystals, I suspected their nature, and, on breaking off a piece and tasting it, I found, to my great joy, that we were in a grotto of rock salt. We were charmed with this discovery. What an advantage this was to our cattle and to ourselves! We could now procure this precious commodity without care or labour, and preferable in all respects to what we collected on the shore, which required to be refined. The acquisition was almost as valuable as this brilliant retreat was in itself, of which we were never tired of admiring the beauty. The only drawback to my entire satisfaction and delight arose from observing some large pieces of the crystallized salt which had evidently fallen from the vaulted roof. Such a separation might recur, and expose us to danger; but, on examination, I found the mass above too solid to be detached spontaneously, and I concluded that the explosion of the fireworks had given this shock to the subterranean palace. I directed my wife

and three of the children to place themselves in the entrance, while Fritz and I tried in vain to knock off some of the pendant crystals in the suspected parts; we fired our guns, and watched the effect; one or two pieces fell, but the rest remained firm, though we struck with long poles as high as we could reach. We were now satisfied of the security of our magnificent abode, and began to plan our arrangements for converting it into a convenient and pleasant habitation. With the usual effects of novelty on young minds, the majority were for the immediate abandonment of Falcon's Nest for the cave. My wife and I, however, decided on adhering to the former as the most eligible summer quarters. There we went every night, and spent the day at Tent House, contriving and arranging our future winter dwelling.

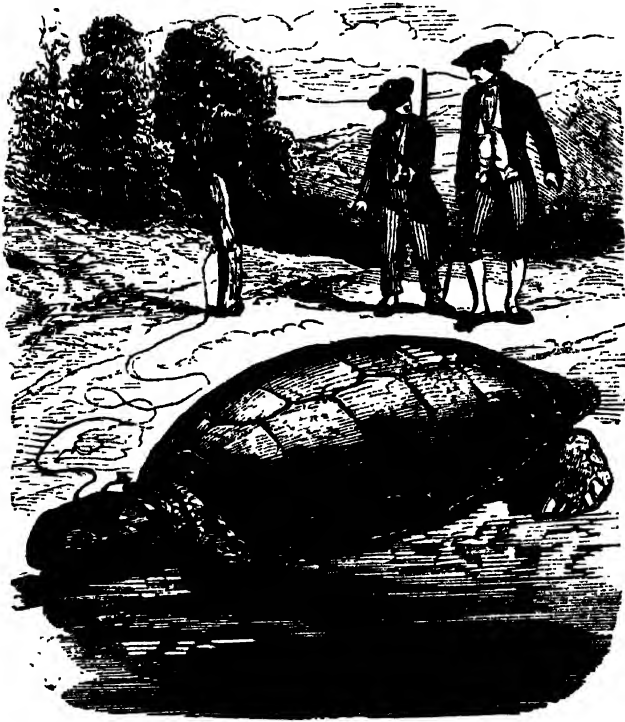
CHAPTER XXVII.

THE CAVE-DWELLING.—HERRING FISHERY.

THE inner portion of the rock, in front of the cavern, through which Jack had dug so easily, was so soft that we had little difficulty in proportioning and opening the place for our door. As, however, I anticipated that it would harden rapidly on exposure to the air, I resolved to lose no time in making such cuttings as appeared needful. Intending Falcon's Nest in future as a rural retreat for the hottest days in summer, the windows of the staircase became unnecessary; and as to the doors, I preferred making one of bark similar to that of the tree itself, as it would the better conceal our abode, should we at any time experience invasion from savages or other enemies; the doors and windows were, therefore, taken to Tent House, to be hereafter fixed in the rock. Having marked out the openings for the windows to suit the frames, we soon cut through the rock, making grooves for fitting them into. I took care not to break the stone taken from the apertures, or at least to preserve it in large pieces, and these I cut with the saw and chisel into oblongs an inch and a half in thickness, to serve a stiles. I laid them in the sun, and was gratified in seeing they hardened quickly; I then removed them, and my sons placed them in

order against the side of the rock, till they were wanted for our internal arrangements.

Having supplied our grotto with the needful light, I next proceeded to lay out its ample space for our winter dwelling. We began to subdivide the whole by one large partition. The right-hand division, which was to be our dwelling, I



again partitioned off into three rooms, the centre one of which was to be the common sitting-room, with the boy's bedroom on one side, and our own on the other. The left portion of the cavern was divided into a kitchen, a workshop, and the stables; behind these were the store-rooms and the cellar. The doors and timber-work which we had brought from the wreck enabled us to fit up very complete partitions, with doors opening from the rooms into the store-house and passages; and, though our work went slowly on, we did not

doubt that it would be sufficiently advanced to admit of our taking up our abode in it before winter set in. Our experience of the miseries of the rainy season through which we had just passed suggested many useful arrangements in laying out this commodious dwelling. I constructed a sort of chimney in the kitchen, formed of four boards, and conducted the smoke thus, through a hole made in the face of the rock. We made our workroom spacious enough for the performance of undertakings of some magnitude, and it served also for our cart-house. The stables were formed into four compartments, to separate the different species of animals of which our live stock now consisted.

It is readily imagined that a plan of this extent was not executed without much time and labour, and that we satisfied ourselves in the first instance with doing what was most urgent, reserving much to be completed in the fitting-up of the interior during the unavoidable leisure of the following rainy season. Yet every day forwarded the business more than we had been aware of; as we made a point of bringing something with us every time that we visited the cave, the removal of our various stores, both from Falcon's Nest and Tent House, and the proper disposal of them in our new dwelling and store-rooms, progressed steadily. ♦

Our frequent residence at Tent House, the centre of our operations, led to some important discoveries, which we had not anticipated. Large turtles often came ashore to lay their eggs in the sand, by which means we obtained an abundant supply of this dainty food; but we raised our desires to the turtles themselves, living, to eat when we chose. As soon as we saw one on the shore, one of my sons ran to cut off its retreat towards the sea. Meanwhile, we cautiously approached the animal, and, turning it dexterously on its back, we passed a stout cord through a hole in the shell, and, fastening this to a stake driven firmly into the ground, the prisoner was set on his legs again, when of course it made for the water, but could only ramble the length of its cord; it seemed, however, very content, finding food with more facility along shore than out at sea, while it was ready for us whenever we chose to take it. Lobsters, crabs, mussels, and every sort of fish which abounded on the coast, plentifully supplied our table.

One morning our attention was attracted by a singular phenomenon. Immense flocks of birds were hovering over a part of the sea which was singularly agitated. From time to time the surface, on which the rising sun now shone, seemed covered with little flames, which rapidly appeared and vanished. Suddenly, this extraordinary mass advanced to the bay, and we ran down, full of curiosity. A shoal of



herrings was approaching and entering the bay. My wife and children were lost in admiration at the wonderful sight; but I reminded them that, when Providence sends plenty, we ought to put forth our hands to take it. I sent for the necessary utensils, and organised my fishery. Fritz and Jack stood in the water, and such was the thickness of the shoal that they filled baskets, taking them up as you would water in a pail; they threw them on the sand; my wife and Ernest

cut them open, cleaned them, and rubbed them with salt. At the end of a few days, we had several barrels of fine herrings salted and stored away among our winter provisions. A still larger quantity were slit up and smoked in a fire of green moss, which effectually preserved them, and gave them a very pleasant flavour.

The refuse of this fishery, which we threw into the sea, attracted a number of sea-dogs, of which we killed several for the sake of the skin and the oil. The skin, tanned and dressed, makes excellent leather. I was in great need of it for straps and harness to make saddles for Fritz and Jack to ride the onagra and buffalo, and we also wanted a fresh supply of soles, belts, and pantaloons. The fat yielded good lamp-oil that might be substituted for tapers in the long evenings of winter; moreover, it was useful in tanning and rendering the leather pliant. When time should allow, I purposed making soap with it; and this design excited my wife's zeal in the unpleasant, though ultimately useful, task we were engaged in. We also took care of the bladders, which are very large, for the purpose of holding liquids.

At this time I made some improvements in our sledge, by placing it on the four gun-carriage wheels I had taken off the cannon from the vessel. By this alteration I obtained a light and convenient vehicle, so low that we could easily place heavy weights on it. Pleased with the operations of the week, we returned with cheerful heart to Falcon's Nest, to spend our Sunday there, and once more offer our thanks to the Almighty for all the benefits he had bestowed upon us.

CHAPTER XXVIII.

NEW EXPERIMENTS AND DISCOVERIES.

THE completion of our dwelling proceeded amid various interruptions, as many employments diverted us from the great work. I had already observed that the rock-salt in our grotto rested on a bed of gypsum, and looked forward to the future use of it in the finishing of our dwelling. I was fortunate enough to discover, behind a projecting rock, a

natural passage leading to our store-room, strewed with fragments of gypsum. I took some of it to the kitchen, calcined it, and reduced it to a fine white powder, which I put into casks and carefully preserved for use. I had already formed



the resolution of constructing our main partition walls with stone, and cementing them with the prepared gypsum; and, as we frequently employed a spare hour in collecting and burning it, we had soon a considerable supply laid aside.

About a month after the appearance of the herrings, we were visited by other shoals of fish. Jack first discovered

them at the mouth of Jackal River, where they had apparently come to deposit their eggs among the scattered stones. I found them to be pretty large sturgeons, besides salmon, large trout, and many other fishes. Jack now strutted about in ecstasies. "What say you now, father?" cried he; "this is nothing like your little paltry fry! A single fish of this troop would fill a tub!" "No doubt," answered I; and with great gravity I added, "Prythee, Jack, step into the river, and fling them to me one by one, that I may take them home to salt and dry." He looked at me for a moment with a sort of vacant doubt if I could possibly be in earnest, and then ran for his bow and arrows, declaring he would kill them all. He fastened the end of a ball of string to an arrow with a hook at the end of it; he tied the bladders of the dog-fish at certain distances to the string; he then placed the ball safe on the shore, took his bow, fixed the arrow in it, and, aiming at one of the largest salmon, shot it in the side. The fish tried to escape. I assisted him to draw the cord; it was no easy task, for he struggled tremendously; but at length, weakened by loss of blood, we drew him to land. My young sportsman shouted with joy. At the same moment Fritz joined us. "Well done, brother Jack," cried he; "but let me, too, have my turn." Saying this, he ran back and fetched the harpoon and the windlass, and returned to us, accompanied by Ernest. Fritz threw his harpoon, and landed, by means of the reel, some large salmon; Ernest took his rod and caught trout; and I, armed like Neptune with an iron trident, succeeded in striking some enormous fish. The greatest difficulty was to land our booty. Fritz had struck a sturgeon, at least eight feet in length, which resisted our united efforts, till my wife brought the buffalo, which we harnessed to the line, and made ourselves masters of this immense prize.

We had a great deal of labour in opening and cleaning all our fish. Some we dried and salted; some of the salmon my wife boiled in oil, similar to the manner of preparing tunny fish in the Mediterranean. The spawn of the sturgeon, weighing not less than thirty pounds, I laid aside to prepare as caviare, a favourite dish in Russia and Holland. I cleansed the eggs from the skin and fibres that were mixed with them, washed them thoroughly in sea-water, slightly sprinkled them with salt, then put them in a gourd pierced with small holes

to let the water escape, and placed weights on them to press them completely for twenty-four hours. We then removed the caviare in solid masses, like cheeses, took it to the smoking-hut to dry, and, in a few days, had this large addition to our winter provision. Our fishing also supplied us with oil and isinglass, from the latter of which I hoped to be able to form a useful substitute for window-panes, of which our stock was very small.

In our fishing operations we had experienced great inconvenience from the want of our tub-boat. As soon, therefore, as I could find sufficient leisure, I had resolved to construct some substitute for it. I was anxious to try and make one of bark, as the savage nations do, and I proposed to make an expedition in search of a tree for our purpose, as all those in our immediate neighbourhood were much too valuable, either for their fruit or the shade they offered, to be injured. We had, as usual, several other objects in view in our proposed journey, and intended taking in our road a survey of our plantations and fields. Our garden at Tent House produced abundantly continual successions of vegetables. The peas, beans, lettuces, &c., were flourishing, and only required water, and our channels from the river brought this plentifully to us. We had delicious cucumbers and melons; the maize was already a foot high; the sugar-canes were in a prosperous condition; and our plantation of pine-apples on the high ground promised to reward our labour with abundance of that delicious fruit.

•This state of general prosperity at Tent House gave us the most flattering expectations from our nurseries at Falcon's Stream. Full of these hopes, we all set out together one day for our former somewhat neglected abode. We found our corn-fields were luxuriant in appearance, and for the most part ready for reaping. We cut down the barley, wheat, and rye. There were also small patches of peas, millet, and lentils, sufficient to supply us with seed for the following year. The richest crop was the maize, which suited the soil. But we found our harvest treasures had not failed to secure an abundant appreciation. Our dogs startled whole flocks of birds, which took to wing as we approached, while quails were seen running off in various directions, and several kangaroos escaped by their singular and prodigious leaps.

After our first shock at the sight of these plunderers, we used some measures to lessen the number of them. Fritz unhooded his eagle, and pointed out the dispersing bustards. The well-trained bird immediately soared, and, pouncing on a superb specimen, brought him to the ground. Fritz hastened to the spot, and, replacing the hood, relieved the



prize from his talons. Fortunately, it was not greatly hurt, and we were delighted on perceiving that it was a male, as we anticipated the advantages that we must reap from procuring a mate for the female bustard which we had already tamed and added to our poultry. The jackal, too, who was a capital pointer, brought to his master several fat quails, which furnished us with an excellent repast; to which my wife added a liquor of her own invention, made of the green

maize crushed in water, and mingled with the juice of the sugar-cane—a most agreeable beverage, white as milk, sweet, and refreshing.

The rest of the day was employed in picking the grains of the different sorts of corn from the stalks. We put by what we wished to keep for sowing into some gourd-shells, and the



Turkey wheat was laid by in sheaves till we should have time to beat and winnow it. Meanwhile Fritz set to work looking out the handmill we had brought from the ship, which it was now desirable to bring into requisition. The next day we proceeded to carry out another project. Our live stock was now increasing so rapidly on our hands that we had reason to apprehend they might become a burden to us. We resolved, therefore, to try whether it might not be possible to naturalize them, so that they might support themselves and

yet still be available to us when wanted. My wife selected from her poultry-yard twelve young fowls. I took four young pigs, two couple of sheep, and two goats. We could well afford to spare them for the experiment. These animals we placed in the large cart, along with provisions and such tools and utensils as we might need, not forgetting the rope ladder and the portable tent; we then harnessed the buffalo, the cow, and the ass, and departed on our tour. Fritz, mounted on Lightfoot, rode before us, so as to guide the way, selecting, as usual, a new route, in order to acquire a more complete idea of the country we seemed destined for ever to inhabit.

Our progress through unexplored districts was attended, as usual, with some new discoveries, one of which was of the utmost importance. Our attention was attracted by a little thicket of low bushes, which presented an appearance as if covered with snow. Francis clapped his hands with joy, and begged to get out of the cart that he might make some snow-balls. Fritz galloped forward, and returned, bringing me a branch loaded with this beautiful white down, which, to my great joy, I recognised to be cotton. It was a discovery of inestimable value to us, and my wife, full of delight, began immediately to enumerate all the advantages we should derive from it when I should have constructed for her the machines for spinning and weaving the cotton. We gathered as much as our bags would hold, and my wife filled her pockets with the seed, to raise it in our garden at Tent House.

After crossing the plain of the cotton-trees, we reached the summit of a hill, from which the eye rested on a terrestrial paradise. Trees of every sort covered the sides of the hill, and a murmuring stream crossed the plain, adding to its beauty and fertility. We decided at once that this should be the site of our farm. We found a convenient group of trees so situated that their trunks would suffice for the main pillars of our dwelling. I also selected a tree suitable for the proposed boat we had in view. The day, however, was already far advanced; and when Fritz and I returned from the latter search, we found the tent erected, and my wife and the boys busy making up very comfortable beds with the cotton which they had already picked. We retired to rest at an early hour, and slept peacefully under our canvass roof.

CHAPTER XXIX.

THE FARM-HOUSES.—A LAKE.—A BOAT.

THE group of trees I had selected for our farm-house formed a tolerably regular parallelogram, the long side facing the sea. The dimensions of the whole covered a surface of about twenty-four feet by sixteen. I cut deep mortises in the trunks about ten feet distant from the ground, and again ten feet higher, to form a second storey; I then inserted beams five inches in diameter respectively in the mortises, and thus formed the skeleton of my building. I placed over this a roof of bark, sloping, that the rain might run off, and fastened the pieces with the thorns of the acacia, which formed a tolerable substitute for nails. In peeling off the bark from some of the neighbouring trees to obtain material for roofing, we discovered both turpentine and gum mastic, which I hailed with satisfaction, as furnishing me with the means of overlaying my boat with a useful substitute for pitch. The instinct of our goats, or the acuteness of their smell, discovered for us another pleasing acquisition. We observed with surprise that they ran from a distance to roll themselves on some chips of a particular bark which lay on the ground, and which they began to chew and eat greedily. It proved to be cinnamon.

We worked for some days at the farm-house. We formed the walls of thin laths, interwoven with long pliant reeds, for about six feet from the ground; the rest was merely a sort of light trellis-work, to admit light and air. The interior we subdivided into fitting accommodation for the various animals, reserving one small apartment for our own use when we should visit it. On the upper storey was a sort of hay-loft for the fodder. We filled the racks with the most favourite food of the various animals, and supplied the poultry with grain and fruits, so as to accustom them to the place; and we agreed that we would return frequently to repeat this process, till the animals became familiar with the place. Our work occupied us longer than we had anticipated, and the provisions we had brought were nearly exhausted. I therefore sent Fritz and Jack to look after the animals at home, and bring back a fresh stock of supplies. For the latter

purpose they took the ass with them, and set off, each on his favourite steed. In the meantime, Ernest and I proceeded to explore the vicinity of our new dwelling, in the hope of meeting with some cocoa-nut palms or other convenient means of immediately replenishing our exhausted larder. For some time we ascended the stream, and came to a marsh



which bordered a small lake, the aspect of which was enchantingly picturesque. I perceived, with joyful surprise, that the whole surface of the swampy soil was covered with a kind of wild rice, ripe on the stalk, the mellow ears of which attracted flocks of birds. We succeeded in bringing down five or six of these; and it pleased me much to observe the skill with which Ernest used his gun. Knips leaped off the back of his usual palfrey, Bill, and, making his way through the rich grass, began picking something which he

ate with great relish. We ran to the spot to see what this was, and were rewarded by the discovery of the chili, or pine strawberry, a delicious fruit, which were most refreshing. Ernest especially enjoyed them, but did not forget those who were absent. He filled Knips's little pannier, and covered them with large leaves, which I fastened down with reeds, lest he should help himself as we went home. I took, also, a specimen of the rice, that my wife might judge how far it was useful for culinary purposes.

We proceeded round the lake, and found ourselves surrounded on every side with new and strange objects. This was one of the most lovely and fertile spots we had yet discovered in the country. Birds of all kinds abounded; but we were particularly struck with a pair of black swans gracefully sailing on the water. We soon saw many more, some of them followed by their young train. Their plumage was perfectly black and glossy, except the extremity of the wings, which was white. Ernest would have tried his skill again, but I interfered and forbade the wanton cruelty. But Bill found no such satisfaction in the mere sight of natural objects; and, while we were admiring the graceful motions of the swans, she suddenly plunged into the water near us, and presently returned with a most singular animal in her mouth. It resembled an otter in form, but was web-footed, and had an erect, bushy tail like the squirrel; the head was very small, and the ears and eyes were almost invisible. A long, flat bill, like that of a duck, completed its strange appearance. This singular creature, which is known in Europe as the duck-billed platypus, was, like the black swan, first discovered in a lake of New Zealand. I told Ernest to secure it, as I should like to stuff and preserve a specimen.

We now began to look for the shortest path for returning to the farm, which we reached nearly at the same time with Fritz and Jack, who had well performed the object of their journey. We remained four days longer, and completed our new structure, and stored it with a good supply of fodder and grain. We also put our own apartment in order, so as to be ready for us whenever we chose to return, and then began arrangements for our departure.

Directing our course towards a height in the vicinity of Cape Disappointment, we gathered on the way a quantity of

fruit, which I recognized to be the stone pine, the kernel of which is pleasant eating. We ascended a little hill in the neighbourhood of the Cape; here we had a view over the country which surrounded Falcon's Nest in one direction, and in others of a richly diversified landscape, comprising sea, land, and rocks. When we had admired for a short space of time the exhaustless beauties of the scene, we agreed with one voice that it should be on this spot we would build our second cottage. A spring of the clearest water issued from the soil near the summit, and flowed over its sloping side, forming murmuring cascades in its rapid course; in short, every feature of the picture contributed to form a view worthy the homage of a taste the most delicate and refined. Here we placed our tent, and immediately began to erect a building, formed in the same manner as our first farm-house. Profiting by our experience, we finished it in the short space of six days; and this new erection received the name of Prospect Hill.

When we had completed this to our satisfaction, I set to work on my projected boat. I selected a sort of oak, the bark of which was closer than that of the European species, resembling more that of the cork-tree. The trunk was at least five feet in diameter. I traced a circle at the foot, and cut the bark entirely through; Fritz, by means of the rope-ladder we had brought with us, and attached to the lower branches of the tree, ascended, and cut a similar circle eighteen feet above mine. We then took a perpendicular slip from the whole length between the circles; by this means we could introduce the proper utensils for raising the rest by degrees, till it was entirely separated. We toiled with increasing anxiety, every moment dreading that we should not be able to preserve it from breaking or uninjured by our tools. We sustained it, as we proceeded, with ropes, and then gently let it down on the grass. Our business was next to mould it to our purpose, while the substance continued moist and flexible. The boys observed that we had now nothing more to do than to nail a plank at each end, and our boat would be as complete as those used by the savages; but, for my own part, I could not be contented with a mere roll of bark for a boat. I wished to have one that would look well by the side of the pinnace; and this idea at once rendered



“By degrees the ostrich got accustomed to this sort of treatment, and the boys were to be seen daily galloping about on their stout and fleet courser.”—P. 180.

them patient and obedient. We began by cutting out at each end of the roll of bark a triangular piece several feet long; then, placing the sloping parts one over the other, I united them with pegs and the strong glue I had made from fish-bladders, and thus finished the ends of my boat in a pointed form. This operation having widened it too much in the middle, we passed strong ropes round it, and again reduced it to the due proportion, and in this state we put it in the sun to harden and fix. Much, however, remained to be done before our boat could be considered completed. I therefore despatched two of the boys to Tent House for the sledge, that we might carry it home and finish it at our leisure. I had the good fortune to meet with some very hard, crooked wood, the natural curve of which would be admirably suitable for supporting the sides of the boat. We found also a resinous tree which distilled a sort of pitch that soon hardened in the sun, and of which my wife and Francis collected a sufficient quantity for my purpose.

Before our departure, we collected several new plants for our kitchen garden; and lastly, we made another trip to the narrow strait at the end of the wall of rocks, and planted a thick hedge of prickly bushes, so as to form through time a barrier against the attacks of wild beasts or of savages, as well as to retain our own animals, including the pigs, which we had brought with us in order to colonise this new station, and prevent them straying to the open country beyond. We accomplished all these undertakings to our entire satisfaction, and, in addition, we placed a slight drawbridge across the river beyond the narrow pass, which we could let down or take up at pleasure on our side. We now hastened our return to Prospect Hill, and, after a night's repose, we put the boat on the sledge, and loading it with such things as were worth removing, including a large bamboo which we had cut and prepared for a mast, we returned to Tent House.

As soon as we had despatched some necessary affairs, we resumed the completion of our canoe, and in two days it had received the addition of a keel, a neat lining of wood, a small floor, benched, a mast and triangular sail, a rudder, and a thick coat of pitch on the outside, so that the first time we saw it in the water, we were delighted to see the smart appearance it had in the water. We were now amply provided for marine

excursions, having the pinnace when we chose to make a distant voyage, and the canoe for coasting observations.

Our cow had, during our absence, given us a young buffalo calf; and, as each of the other boys had his favourite animal to ride, I determined that the bull should belong to Francis, and be trained for his use. I accordingly began by piercing its nostrils, and attaching a cord to it, by which its little master could hold it in check. It rapidly grew under his care, exhibiting considerable docility. Francis was delighted with his new charger, and determined to give him the name of Valiant.

We had still two months before the rainy season, and we employed them in completing our abode at the grotto, with the exception of such ornaments as we might have time to think of during the long days of winter. We made all the partitions of wood, and that which separated us from the stables of stone, so as effectually to exclude any offensive effluvia. We soon acquired skill in our works; we had a plentiful supply of beams and planks from the ship; and by practice we became very good plasterers. We laid the whole floor with clay, which we overlaid with gravel, and beat it till it was smooth and firm. We then contrived a sort of felt carpet. We first covered the floor with sail-cloth, and strewed goats' hair mixed with wool over it; on this we poured a cement we had prepared with isinglass and gum. The whole was then rolled up, and was beaten for a considerable time to compact it together. When this was dry, we repeated the process, and in the end had an admirable floor-cloth. Pleased with our success, we made similar coverings for the floors of our sleeping apartments, so as to protect us effectually against risk of damp during the approaching rains.

By the time these various works were completed, the indications of the coming winter began to make themselves felt. We therefore lost no time in completing all our needful stores and provender, and removing our cattle and poultry to our cave dwelling, so that we were completely prepared for every contingency when the rain at length should set in. The privations we had suffered the preceding winter increased the enjoyment of our present comforts. The season proved much more cold and boisterous; but we had now a warm, well-lighted, convenient habitation, and abundance of excellent

provision for ourselves and our live stock. In the morning, we could attend to their wants without trouble; the rain water, carefully collected in clean vessels, prevented the necessity of going to the river. We then assembled in the dining-room to prayers; and after breakfast to the work-room. My wife took her wheel, or her loom, which I had, though with indifferent success, constructed; however, it answered the purpose, and kept her in constant employment suited to her taste. I had also contrived to construct a turning-machine with the help of the wheels of a gun, and I managed to produce some tolerably useful utensils. The turning-lathe was a special favorite with Ernest, who speedily acquired great dexterity in its use. After dinner, our evening occupations commenced; our room was lighted up brilliantly; we did not spare our candles, as they cost no more than our own trouble in collecting and manufacturing the materials; and we enjoyed the reflection in the elegant crystals above us.

We had partitioned off a little chapel in one corner of the grotto, which we left as much as possible in its natural state, and nothing could be more magnificent than this chapel lighted up, with its colonades and pendants, and its walls covered with the glittering crystals, which reflected back the light with the most dazzling brilliancy. We had divine service here every Sunday. I had raised a sort of pulpit, from which I pronounced such discourses as I had framed for the instruction of my affectionate group of auditors. Jack and Francis had a natural taste for music: I made them flageolets of reeds, which they soon learned to play with considerable skill, and, when accompanied with their mother's sweet voice, this music in our lofty grotto had a charming effect.

We had brought from the wreck a case of books belonging to the captain; some had also been found in the officers' chests, so that we possessed a tolerably respectable library, which embraced collections of voyages and travels, works on navigation, and what interested us above all, various books on zoology, botany, and other branches of natural history; in addition to which there were various vocabularies and grammars of foreign languages. With the exception of Francis and Jack, we all knew French, besides German. Fritz and Ernest had some knowledge of English. As we looked forward to the possibility of a European vessel reaching our

island some day, the idea of our not being able to communicate with the voyagers, stimulated all of us to devote some of our leisure hours to the study of that language.

CHAPTER XXX.

A WHALE.—A PALANQUIN.

THE rainy season having at length elapsed, and as we could again gaze upon the aspect of external nature, we amused ourselves by a walk along the base of the cliff, and indulged in an exercise to which we had been long strangers. Fritz had climbed an elevated peak among the rocks, and observed some black object of considerable magnitude, somewhat resembling an overturned boat, lying on the shore of the bay. We betook ourselves to the boat, and on reaching the object of our excursion, it turned out to be an enormous whale, stretched dead upon the strand, which I immediately resolved to turn to account by converting it into a store of oil; and we hastened back to the shore, in order to provide ourselves with the needful appliances.

Dinner being over, which we despatched with the utmost haste, we prepared for our novel task. We attached four tubs, formerly conjoined to our first boat, to the stern of our canoe, and furnished ourselves with hatchets and other needful implements. My wife, having been persuaded to accompany us, brought little Francis with her, and both of them loudly expressed their surprise at the enormous size of the creature, which was between sixty and seventy feet long, and nearly forty in diameter. Fritz and Jack put on cramps on their shoes, and mounting on the back of the whale, proceeded to cut up the huge mass with their hatchets and knives, whilst Ernest and I employed ourselves in like manner on the sides. My wife and Francis carried the pieces, as we cut them off, to the tubs. The work was by no means pleasant, for we were soon almost wading in oil. I also cut some long bands from the tough skin of the animal, of which I intended to make harness for our beasts of burden. Evening approaching, we hastened to the shore with our valuable cargo, which, being aided by the ass and buffalo, we soon transported home.

Next morning we started at dawn. My wife and Francis

were left behind, as the work which we were about to engage in was such that we had no inclination they should share it. I had resolved to penetrate into the interior of the carcass to procure some portions of the intestines, fancying that I might be able to convert the larger ones into vessels adapted for holding the oil. We were led by our former experience to strip off nearly the whole of our clothes before we commenced operations. Collecting another cargo of the blubber, we abandoned the remains to the birds of prey that were flocking from every side, and then set sail for land.

The day following we devoted to the extraction of the oil. Placing tubs on stands, and putting the blubber in them, we placed upon it some large stones so as to press out the oil, which ran into the bags we had made from the intestines. This was pure oil. We next boiled the blubber in a cauldron, skimming off the oil as it rose to the surface. The refuse thrown into the river served to fatten the ducks and geese.

Having promised the boys that I would try and construct for them an apparatus calculated to diminish the labour of rowing, I set to work accordingly, and by means of some small wheels, originally destined for the sugar-manufactory, I constructed a machine that produced the desired effect. It consisted of a pair of small revolving paddles, to which I attached floats made of whalebone, and after various attempts I succeeded in perfecting an engine that would cause these wheels to rotate in the water on turning a handle.

One morning soon after dawn, we set off on an excursion. The strong current of Jackal River bore us rapidly from the shore. We made for the coast on the opposite side of the bay, near the Monkey Wood, with a view to obtain a supply of cocoa-nuts and young trees, which we intended to plant on Whale Island. In making our way through the trees, we heard the cocks crowing, an indication of the neighbourhood of our farm-house, and an assurance of the safety of its occupants. Having accomplished our purpose, we re-embarked and rowed towards Prospect Hill. Here everything was in order, but our long absence had produced its natural effect; the sheep and goats, as well as the poultry, fled as we appeared. Finding that their racing was of little use, the boys set to work with their lances, and soon had the she goats noosed, and obtained from them a very acceptable supply of milk. We

wished to carry off some of the young poultry, and, after distributing a few handfuls of oats, we had no difficulty in securing as many as we wanted. Fritz and I gathered sugar-canes, and dug up some roots of this valuable plant, which we proposed to transfer to Whale Island.

On returning home, I hoisted the sail, and, aided by our



paddles, we soon reached Whale Island. We hastened to land and plant our roots and young trees. Whilst our work was proceeding, we were suddenly attracted by the shouts of Fritz; he had discovered a tortoise of prodigious size. This we secured after a hard struggling. Passing a cord through the shell, and emptying a barrel of water which we had brought with us, and plugging it tightly, we tied it with cords to the back of the tortoise, so as to prevent it from sinking. I then attached a spar to the front of the shell, and secured to it a

cord fastened at both ends, so as to supply the place of reins, and yoked the tortoise to the front of the boat. The project answered admirably; guided by the reins, the tortoise made swiftly for the shore, drawing the boat after it. Our noble prize supplied materials for many a good dish, and furnished an excellent basin which we fixed in the Rockhouse to hold water.

Soon after the rainy season I had set to work on the construction of a weaving-machine to enable my wife to complete some necessary fabrics, as our garments had been so patched and repaired that they threatened to fall to pieces.

Our winter's experience had determined us to increase the number of windows to our Rockhouse, so as to admit a greater amount of light and better ventilation. We had no glass, so some substitute was needful, and I manufactured window-panes of isinglass. The thickness of the rock rendered it easy to place my new material beyond the reach of rain, and in other respects it answered the purpose, as it admitted as much light into our dwelling as was necessary.

My sons had long urged me to supply them with saddles and horse-furniture. The spoils of the chase had furnished us with abundance of leather, and a long hairy moss furnished stuffing. We selected a number of pieces of the hard bent roots of trees for our frames, and equipped all our animals with saddles, stirrups, bridles, yokes, and collars.

The annual return of the herring shoals called us to another employment. Our boat now greatly increased our facilities for their capture. As on former occasions, the herrings were followed by other fishes, of which we did not fail to avail ourselves.

Our sacks having begun to fail, we stood greatly in need of baskets to carry our potatoes and other roots, as well as the fruits and nuts that we gathered. Collecting a quantity of reeds and rushes, we set to work. Our first attempts were somewhat clumsy, but ultimately we finished a number of baskets which had the essential requisites of lightness and strength.

The completion of this work suggested another field for our ingenuity. Fritz proposed making a sort of carriage for his mother, a litter or sedan-chair, in which she could accompany us in long journeys without fatigue. He proposed to weave a

large and long sort of pannier of strong reeds, in which his mother might sit or recline, and which might be suspended between two strong bamboo-canes by handles of rope. He then purposed to yoke two of our most gentle animals, the cow and the ass, the one before and the other behind, between these shafts, the leader to be mounted by one of the children as director; the other would follow naturally, and mamma would thus be carried without any danger of jolting. The idea struck me as a happy one. The manufacture of a palanquin was commenced forthwith, and we succeeded in making a very pretty osier-carriage, which answered its purpose tolerably well. The experiment was tried as soon as we had completed the vehicle.

CHAPTER XXXI.

A BOA-CONSTRUCTOR.—DEATH OF THE ASS.

ONE morning we harnessed two of our animals. Two stout poles were placed across their backs, to which the palanquin was hung, and into which Ernest got, while Jack and Francis mounted on their steeds. Whilst watching the proceedings of the boys, my attention was arrested by Fritz, who had been gazing for some time in the direction of Falcon's Nest, and suddenly exclaimed, "What can that be that is coming this way in so singular a manner?" He ran for our large telescope. No sooner had I obtained a distinct view of it than I exclaimed, "Fly every one to the cave! It is a huge serpent advancing straight towards us!" We hastened to our cave-dwelling, and barricaded every door and window.

We had recently constructed a large dove-cot on the rock above our habitation. To this we now ascended, and, as the serpent approached, Ernest discharged his gun. Jack and Francis immediately followed, but the creature gave no sign of their having done any execution. Fritz and I now took aim and fired, apparently with no better effect. But shortly after it glided away, and disappeared among the reeds in the marsh.

The terror arising from this formidable visitor kept us for three live-long days prisoners to our grotto, during which no

one ventured out. The enemy had given no new sign of his presence, and we might have presumed that he had withdrawn, if the agitation shown by the ducks and geese, and their abandonment of the spot where their nests were, had not assured us that the monster was still in the vicinity.

Every moment our situation became more critical. We had no stock of provisions; our fodder was rapidly disappearing, and we seemed to have no alternative between starvation or a more sudden fate by the horrible reptile that lay in wait for us. I had thought of a resolute attack on the creature, but this, I felt, might cost the lives of several of us, and fail after all. Our dogs were powerless against such a foe, and our guns had already proved of no avail. The fodder in the cave that had remained over from the supply of the previous winter was so much reduced that we were obliged to abridge the supplies to the other animals in order that the cow, on which we were now, to a certain extent, dependent for our own subsistence, might be cared for. In this dilemma, we determined to set the other animals at liberty. We arranged that Fritz, mounted on his own favourite, the onagra, should endeavour to lead them by a ford near the mouth of the river across the open country.

While we were setting the animals loose, my wife opened the door somewhat prematurely. The donkey, which happened to be nearest, no sooner saw the light than he bolted out, and dashed along the sands, capering and kicking up his heels in evident delight at his freedom. As the poor animal approached the marsh, we saw the boa suddenly emerge from its concealment, and making for him with distended jaws. The donkey saw his danger, but he seemed paralysed with fear, and in another instant he was enveloped in the folds of the monster.

The sight of the huge serpent crushing its victim and kneading him into a shapeless mass was altogether horrible. When this seemed completed to its satisfaction, it began to gorge its prey. We saw the entire mass disappear by degrees within its distended ~~bowels~~ ^{throat}. When all was swallowed, it appeared to lie perfectly torpid and insensible.

An opportunity now presented itself to us to overcome our assailant. I accordingly seized my loaded gun, and set out, followed by Fritz and Jack, while Ernest withdrew with

Francis and his mother into the grotto. We were now satisfied that we had to deal with a boa-constrictor, the most formidable of all the serpent tribe. When within about twenty paces, Fritz and I took deliberate aim, and each



lodged a bullet in its head. The serpent still glared on us with flashing eyes of ~~in~~ potent rage, but its body seemed to writhe and move as with a convulsive struggle. Advancing together, we fired our pistols directly through the monster's eyes. We saw the boa contract the rings of its scaly body, a violent quiver ran through its frame, and the

next instant it was stretched out dead on the sand. Our shout of triumph induced Ernest, my wife, and little Francis, to join us. After the painful state of mental anguish we had been kept in for three days, we felt our deliverance little less joyfully than on our first landing from the wreck.

We disinterred the mangled remains of the poor ass from his horrid sepulchre, and buried him in the earth near the



scene of his death. Having determined to preserve the evidence of our victory, we yoked our buffaloes to the dead serpent, and drew it to the vicinity of Rock House. Dissecting and stuffing the huge monster was a source of great delight to the boys; and, when completed, we wound it round a long pole, and placed it erect in the Museum, over the entrance of which Ernest now wrote, "No entrance for

asses!" A sentence which, as it admitted of more than one meaning, was considered by all of us to be a good joke.

Having escaped from the imminent danger with which we had been menaced, I could not rest satisfied till we had ascertained whether the boa had perchance left its mate in our neighbourhood, and resolved, accordingly, to explore the country. We sallied out, and, in addition to our usual arms, we carried with us some broad planks and long staves of bamboo, as well as bladders, to sustain us on the water, should it be necessary.

On reaching the marsh, we readily recognized the traces left by the boa, and, by placing our planks, one after another, on the yielding ground, we were able to explore the marsh thoroughly, and satisfy ourselves that there was no further cause of apprehension in this quarter.

Going further on, we discovered that the stream which flowed into the marsh emerged from a vast cavern. The roof and vaults of the cave were covered with stalactites, while the floor was strewn in part with a fine white earth, which, on examination, I became convinced must be fuller's earth. This natural soap is adapted for many uses, and especially for cleaning woollen fabrics, much better than any artificial soap. We filled our handkerchiefs with it, and, on our return, found my wife well pleased with our journey when we showed her this as the result of it.

On the following day, I suggested that the whole family should accompany me in an excursion to the further side of the great bay. Our preparations were on a suitable scale. We loaded the waggon with provisions sufficient to admit of an absence of some duration. We took also our tent, and an abundant supply of ammunition. My object was not only to follow up the traces of our late visitor, but also to erect in the gorge beyond the great bay such a barrier as should effectually prevent any wild animal from approaching us too closely from that direction.

We proceeded along the avenue in the direction of Falcon's Nest. We discovered traces of the bear's course as we advanced, but everything was in good order there; the whole of our live stock was in admirable condition. After having dined, Fritz and Jack, accompanied by Turk and the jackal, set off along the right bank of the Black Swan Lake, whilst

I, with Francis and the two young dogs, took the opposite side; Ernest and his mother being left, with Bill for their guard, to watch our provisions, and collect as large a supply as possible of the rice now ripening in the marshy fens along the margin of the lake. We all returned without having seen any further traces of our hideous foe. As the boys were all wearied with their long ramble, I lost no time in putting our tent in order, and making the needful preparations for camping out in safety.

The following morning we set off in the direction of the sugar-cane field, and proceeded to explore the cane-brake. In so far as any traces of the formidable foes we dreaded are concerned, we were fortunately unsuccessful. We met, however, with a troop of large, grey-coloured swine, of which we brought down half-a-dozen. I fancied they would form a most valuable addition to our winter store, and forthwith we set about preparations for smoking and curing our supply of pork on the spot. These we continued for the three following days, making, meanwhile, excursions in various directions, one being left behind to superintend the fires with which our hams were being cured.

CHAPTER XXXII.

AN EXCURSION INTO FRESH TERRITORY.

WE now decided upon a more extended survey, and resolved to penetrate beyond the barrier which I had only once before passed, when Jack and I went in search of our stray ass. We arrived without accident of any kind at the barrier which guarded the defile, forming the boundary of what we now considered our own territory.

Fritz was greatly pleased with the commanding position of a rising ground in its immediate neighbourhood, and urged upon me the propriety of erecting there a fortified station which would enable us to defend the pass against all enemies, and we constructed a post somewhat in the Kamtschatkan's fashion, composed of boards, elevated on four stakes at the corners, and sufficiently high to be out of the reach of any wild animal.

My wife remained behind at the station we had just

erected, with Francis for her companion, and Bill and the jackal as their protectors. The other boys accompanied me on the following morning. We found the palisade and the hedge, which we had placed as a barrier at the pass, displaced, and abundant traces proved that the boa had approached by this route.

After passing through this defile, we proceeded for a time along the banks of the stream, the vast plain beyond which seemed only bound by the horizon. Vegetation gradually disappeared as we receded from the river, till a perfect desert seemed to surround us on all sides. The heat began to annoy us. After a painful march of two hours, we at length reached a large rock, and found its shade most agreeable and refreshing. Stretching ourselves at full length, we gazed in silence for a time on the surrounding country. I had put into my bag some pieces of sugar-cane, and these I now distributed to the boys. Sucking these greatly refreshed us, and helped to relieve our intolerable thirst. It restored also our appetites, and we partook with relish of the provisions we had brought with us.

Fritz, in the meantime, had mounted on a projecting ledge of rock, from whence he had been looking intently in one direction for some time, and suddenly called out that a party of horsemen were riding towards us at full gallop. I examined them through the glass, and had no doubt they were ostriches.

As the stately birds drew near us, I could distinguish that the group consisted of one male and two females, and we resolved, if possible, to capture one of them. We all crouched down under a tuft of high plants, which served to shelter us, holding the dogs so as to prevent them from frightening the approaching birds prematurely. As they drew near, however, the dogs got sight of them, and struggled to escape; and, as they advanced, we observed that they had become aware of our presence. In an instant, as our dogs suddenly sprang out, they were off from us with distended wings, skimming along as if their feet scarcely touched the ground. At this moment, Fritz unhooded his eagle, which flew right at the largest of the three, and, fixing its talons in its head, forthwith attacked its eyes; and before we could reach it, the eagle and the dogs had inflicted

such injury that the gigantic bird was expiring under its wounds. We were sadly mortified at this issue of the chase; the evil, however, being now irremediable, we plucked out its magnificent white plumes and placed them in our hats.

Whilst Ernest, Fritz, and I were conversing on the nature



and habits of the enormous bird as a native of the desert, and adapted by Providence for subsisting on the scattered herbs and tufts of grass which cover such arid plains, our attention was attracted by Jack, who had followed the dogs, and was now waving his hat and shouting for us to come and inspect some wonderful discovery he had made. We hurried on accordingly, and found him exploring an ostrich's nest, a hole dug in the sand, and filled with about thirty eggs as large as a child's head. The dogs had uncovered it, and one of the eggs was already broken. The boys wanted

to carry home the eggs and hatch them in the sun. They were obliged, however, ultimately to content themselves with one egg each.

We now directed our steps towards the river, and soon came upon a spring of water, surrounded with a reedy marsh, in which we observed traces of the footprints of antelopes, buffaloes, and other animals; but we saw no traces of the boa constrictor. After resting for some time, and taking a slight refreshment, we filled our calabashes with water, and continued our route. Following the course of a small stream which had its origin in the fountain, we arrived at a charming little valley covered with herbage, and sheltered by clumps of trees. Proceeding through this oasis of our desert, we found ourselves once more on the open plain, and at a short distance from the cave where Jack had captured the young jackal cub.

Ernest hastened on before us, followed by one of the dogs, towards the cave; but presently we saw him running towards us, pale as ashes, and crying, in accents of terror, "A bear, a bear is after me!" An enormous bear soon made his appearance, and that was followed by another. The dogs flew to attack the one in front. Fritz took up a position beside me, while Jack and Ernest remained in the rear. Our first shot being ineffective, we took deliberate aim a second time, and both the shots told. We charged again, but the danger of wounding our brave defenders, which were now engaged in close struggle with the bears, compelled us to hold our hands. The dogs were already wounded in various places, and seemed on the point of being defeated. In this emergency, Fritz and I advanced, and, taking aim within a few feet of the bears, I fired at the one, while Fritz directed his shot against the other. Then, drawing our pistols from our belts, we discharged their contents at the heads of our formidable assailants, and the next instant both lay dead at our feet.

The boys soon forgot all fear in their delight at our success. As it was time to think of returning, we covered up the carcasses in the cave, taking care to cut off the forepaws, which form a very delicious dish, fit for the table of kings, and hastened back to the spot where my wife was already impatient for our return. She had not, however, been idle

during our absence. With the ~~black~~ her little companion, she had collected fodder for the ~~cave~~, and also accumulated a sufficient quantity of wood to supply the fires for our protection during the night.

Next morning, after a hasty breakfast, we harnessed our beasts to the cart, and started in the direction of the cave. On approaching, we found a large concourse of birds already assembled near it. Fritz brought one dead to the ground. At the report of the gun the whole band of marauders rose on the wing, and rapidly disappeared in different directions. We transferred our prizes to the cart, on the top of which Fritz threw the condor which he had shot, and, thus laden, we hastened to return to the tent.

We occupied an entire day in the dissection of our bears. I cut off the hams, and separated the remainder into convenient pieces, which we prepared by means of green wood-smoke. The fat was carefully preserved under my wife's directions, and the dogs came in for their share also. The skeletons Ernest insisted on having home to add to his collection. We employed our best talents in dressing the skins, so as to preserve the fur, and render the leather soft and pliable. The black bear, whose fur is most valued, is only found in cold countries; but the brown prefers the south. A species of pepper we had discovered we now employed in the preservation of our bear hams and preserved meat. We also rubbed the skins well with it; and we likewise stuffed the condor which Ernest was anxious to preserve.

The preparation of the skins, and the preserving of the bears' hams, was not the sort of labour which the boys had had in perspective when our expedition commenced, and they soon began to manifest symptoms of dissatisfaction with our somewhat monotonous occupation. It was decided, therefore, that they should sally forth alone, in quest of adventures, to the country beyond the river. The proposition at once revived their drooping spirits, and was hailed with delight. Ernest, however, preferred to stay behind, while Francis wished so eagerly to be allowed to join the expedition, that I was forced at last to yield a reluctant consent. The three were speedily in the saddle; and, gaily wishing us good bye, they set off at a gallop, while Ernest contentedly wished them a pleasant journey and a safe return.

My wife and I resumed our domestic occupations, and Ernest set to work to cut the ostrich eggs in two, so as to make cups of the shells. This he effected by tying a string dipped in vinegar round them, which slowly ate away the



shell, the inner membrane being cut with a knife. Another occupation, however, proved more to his taste. I had discovered a small cavern near the tent, and we both set off to examine it. Among the minerals which it contained, we were highly pleased to discover a block of chalk, which split into thin lamina, as transparent as glass. . I felt assured

that I would be able to make window-panes of it for our dwelling.

Towards evening we drew near the fire, where our good manager was busy preparing our supper. Ernest and I were discussing various projects, and beguiling the time till our rovers should return. We had not to wait long. Our young huntsmen galloped up, hailing us as they came in sight with a shout of joy and triumph. "The chase for ever!" cried Jack; "Storm and Valiant are famous coursers. Look at the prizes we bring!" Jack and Francis had each a young antelope attached to their saddles, and Fritz produced two beautiful Angora rabbits from his game-bag.

The boys were so eager to tell their adventures, that we could scarcely make them eat, so anxious were they to tell their respective tales. "But that is not all," exclaimed Fritz, when his brothers were at length silent, "we have driven a whole troop of antelopes within the defile, so that we can capture them whenever we think fit. To retain them there, we adopted the simple contrivance of stretching a cord at some height across the whole defile. To this we suspended the ostrich feathers we had stuck in our hats, our handkerchiefs, and various other articles, the motion of which effectually scared them. I read of this admirable device, in Le Vaillant's 'Voyage to the Cape of Good Hope.' It is employed by the Hottentots for a nearly similar purpose."

The capture of the Angora rabbits was due to the eagle, which had pounced down among a large troop of them, and wounded three, two of which Fritz rescued with little injury, while the eagle found his reward in devouring the third. Fritz proposed locating them on Shark Island, where they might breed without risk of injury to anything, and supply us with both food and fur. We constructed a sort of wicker cage, in which the rabbits as well as the antelopes could be placed, and so safely conveyed them to Rockhouse.

As I was desirous of paying another visit to the ostrich's nest, I called my sons the following morning at break of day to prepare for our departure. We decided on making this excursion on the backs of our steeds. Ernest was content to rest beside his mother. As usual, the dogs were taken with us.

When we had nearly reached the nest, we observed certain objects moving on the horizon. These proved to be four noble ostriches—a male and three females—advancing towards us. As they drew near, we kept the dogs well in, and remained quite immovable, so that they came within pistol-shot of us before stopping. Fritz had let his eagle fly, and prepared to prevent the fatal results of his former attempt. At one swoop the eagle alighted on the ostrich's head, and, annoyed apparently to find its beak fastened, it struck violently with its wings, so as to stun the unlucky bird, while we rode up alongside and attacked it at close quarters. Jack now threw his lasso dexterously round the legs of the ostrich, which staggered forward, and the next instant fell to the ground. I threw my hunting-pouch over its head, and, to our great delight, it at once lay as quiet as a lamb. I now fastened the legs firmly with cords, so as just to admit of its walking. We then fastened it to the two bulls, which were placed one on each side. The two riders jumped into their saddles, and I pulled the bandage off the head of the ostrich. For an instant it stared about it as if perplexed at its position; but it speedily began to start and struggle violently. The boys gave the spur to their sturdy coursers, between which it was secured, and, after a little unavailing struggling, it set off between them at a tolerably quick pace.

Fritz and I now started in search of the ostrich nest, which we had little difficulty in finding. As we approached, a female bird rose, and fled swiftly into the desert. This sight satisfied us that the nest had not been abandoned, and that the eggs still retained the principle of life. I selected some, and put them carefully in a bag I had brought on purpose, padded with cotton, and laid it on the back of the onagra. On overtaking Jack and Francis, we found their captive moving along with them in sullen submission to an inevitable fate, only at occasional intervals starting into an ineffectual struggle.

It would be difficult to convey an idea of the astonishment of my wife and Ernest at the sight of our uncouth prize, which we now secured firmly between two trees. The remainder of the day we spent in preparations for our return home on the morrow, and we set off next day, after an early breakfast.

Halting at the edge of the defile where the boys had constructed their barrier of ostrich feathers, handkerchiefs, &c., in order to keep back the antelopes, we constructed a palisade of bamboo across the entire defile, sufficient to exclude any animal that could not climb, and on each side of this we planted a row of the prickly thorn, so as ultimately to form an effectual rampart between us and the region beyond.

It was past noon on the following day before we reached our pleasant home, and were delighted once more to rest beneath the shelter of its roof.

As much time as we could spare was devoted to the ostrich. It was fastened to one of the bamboo posts of our summer-house, and I loosened the cords so as to allow it as much freedom as was consistent with its safety.

Immersing the ostrich eggs in warm water, we found reason to believe that five of them still retained the vivific principle. These we resolved to try and hatch in the Egyptian fashion. With this view, we constructed an oven, heated as nearly as possible to the proper temperature, and lined with cotton down, into which the eggs were wrapped.

The two rabbits we transported to Shark Island, and, partially constructing a burrow for them, left themselves to finish it. We also erected a little hut for the antelopes, and stored it with provisions, so as to attract them to its shelter, and, as it was open, they had the whole range of the island.

● We now employed some of our spare time, daily, in looking to the laying in of an ample provision for the winter, and also exerted ourselves to complete all needful repairs and embellishments which involved the necessity of out-door labour, reserving all other work until the rainy season put an end to operations in the open air. During the intervals of repose which the heat compelled us to take, we set about breaking in the ostrich. We bore in mind the happy effect that the fumes of tobacco had had in subduing the wild nature of the eagle; we tried the same means, and with like success, in dealing with the ostrich. For a time it refused to eat, but after we had used force in compelling it to swallow some balls of maize and butter, it gave us no further trouble

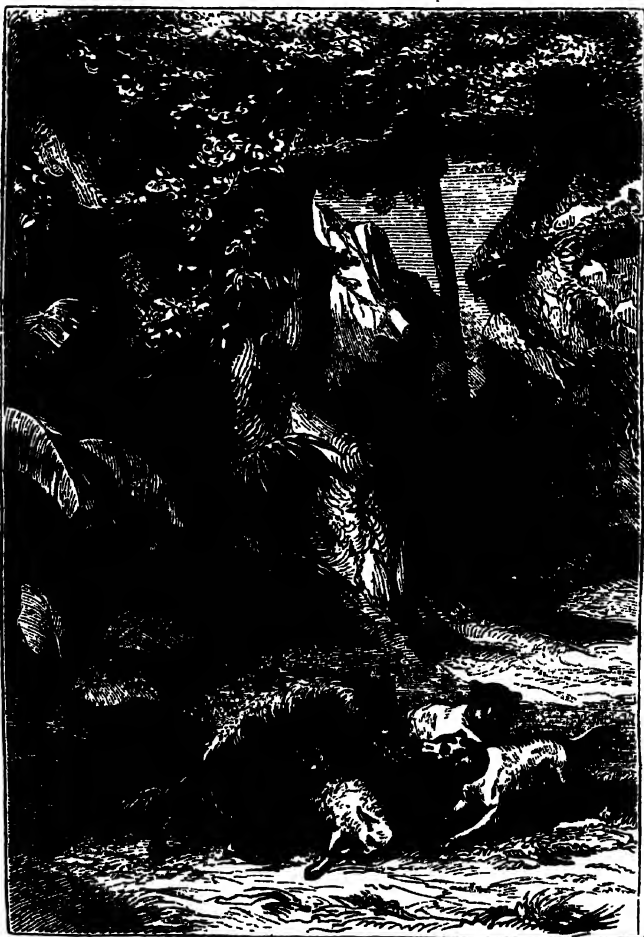
on that score, and we had the satisfaction of seeing it partake heartily of the food set before it.

Our next step was to break it in for walking, running, or going at such pace as we might desire. For a month it was daily yoked between the bull and buffalo, after which I imagined I might venture to try it alone. For this purpose we wanted something of the nature of a bit and bridle. We knew the effect that the absence of light had in subduing the violence of the ostrich, and rendering it totally passive. When blindfolded it stood still, and could not be urged to go on. I therefore made a hood of skin, fitting closely to its head, and having two holes corresponding to the eyes. To this I affixed a couple of blinders, so that one or both could be opened or shut at will. According as the blinders were drawn on the one side or the other, the ostrich turned in the opposite direction towards the light; and, when both were closed, it immediately stood still. It was with considerable difficulty that it was induced to submit to being mounted, and this could only be ventured on at first when it was blindfolded; but by degrees it got accustomed to this sort of treatment, and the boys were to be seen daily galloping about on their stout and fleet courser between Rockhouse and Falcon's Nest. I had some difficulty in settling the question of ownership. As Jack seemed to manage it best, I decided in his favour, conditioning, however, that it was not to be regarded as his exclusive property.

Our attempt at artificial ostrich-hatching had so far succeeded that we had two young ostriches, the drollest little creatures imaginable. They were covered with down, and looked like ducks mounted on stilts. They partook freely of boiled rice, maize steeped in milk, and the like food, and we now ventured to cherish the hope of training up a pair of ostriches for future use.

The finishing preparations were at length given to our bears'-skins, and we found ourselves furnished with two warm and beautiful shaggy fur coverings.

Our hats and caps being nearly worn out, I set to work and made a round block of wood on which I stretched the skins of the musk-rat over a layer of paste, composed chiefly of isinglass. On allowing this to dry, it took the exact shape of the mould. After I had fitted a broad rim to it as a pro-



"The dogs now rushed in, and, although the hyena was so much disabled, it defended itself fiercely, and a terrible combat ensued."—P. 195.

tection to the eyes, I dyed the whole with cochineal, and produced a hat which obtained universal approbation. It was given to Francis. We proceeded to complete similar coverings for all, and found, as usual, that practice enabled us to improve considerably on our first attempts.



I now tried my hand at the manufacture of pottery. We had a considerable quantity of porcelain earth, which the boys worked up into a paste, mixing it with pounded talc, while I constructed a potter's lathe out of the wheel of one of the cannon-carriages. On this I formed cups, saucers, and dishes of various kinds. Many of them fell to pieces in the kiln; but we persevered, and obtained a sufficient number to reward us for our pains. Seeing my wife much delighted with these additions to her crockery, I proceeded to make more elegant forms, and, as we had a quantity of coloured

beads, we pounded these into a fine powder, and employed them in giving beauty and variety of colour to the new ware.

CHAPTER XXXIII.

THE RAINY SEASON RETURNS.

THE sudden change of the temperature while we were thus engaged had warned us that all opportunity for pursuing outdoor work was now at an end, and the rainy season was once more setting in. We found ourselves provided with the most agreeable occupations, and amply furnished with stores and provender for the winter, so that we looked forward to our confinement at Rockhouse as to a period of pleasant relaxation.

For myself, the turning-lathe was a source of constant occupation and amusement, and my wife made so many demands on me that I became quite expert in its use. Ernest was never wearied so long as he was permitted to pursue his studies in the library; but the rest of the boys were speedily wearied of the books, and I felt somewhat at a loss to devise occupation for them, when Fritz proposed that they should try and make a light boat, like the kajack of the Greenlanders, which would enable them to move almost as swiftly on the sea as their ostrich was capable of going with them on the land. The proposition was universally agreed to.

The frame of the boat consisted of bamboo and whalebone. It was made on a larger scale than the kajack of the Greenlanders. Over the frame a covering of light and pliant rushes was woven, and the whole completely saturated with warm pitch. When this was dried, it was so light that one of the boys could lift it with ease. We stretched over the whole well prepared sheep-skins, which were strongly sewed together, and the whole filled in with gum, so as to render it completely water-tight. We fastened bladders filled with air to either end, where they were out of the way, and yet effectually secured its buoyancy, and prevented it from overturning, or from sinking, even should a hole be pierced through the fragile fabric. We made light oars with bamboo, and constructed

in the bow a seat with a hole in it to receive a mast, should it hereafter be found advisable to rig it with a sail.

We also contrived a waterproof and swimming costume to render the boatman impervious to wet, and incapable of sinking even, should the craft upset. The whale's intestines supplied an abundance of material far superior to any artificial oilskin; and, with his mother's help, Fritz was equipped with a complete suit, so well put together that, when it was properly put on, he could float in the water like an inflated bladder.

These different occupations aided us to pass the rainy season, which visited us earlier this year than usual, and did not continue so long. The swimming dress was the last work on which we were occupied, and Fritz was impatient to put its practical qualities to the test. One fine morning, accordingly, we transported our canoe to the sea-side, and Fritz donned his novel equipment. When he had blown it full of air and tied the pipe by which it was filled, he looked exactly like a huge walking sausage. Fritz was in no degree discomposed by our laughter, but marched straight down to the beach, and, plunging into the water, swam off for Shark Island. We followed him with as little delay as possible. Not a drop of water had penetrated through his new dress.

The little antelopes fled on our approach, but we took care that they should in no way regret our visit. We left them a good store of maize and rice, along with fresh fodder, sprinkled with salt. We saw abundant evidence that the hut we had erected had served them for a winter retreat.

Wandering along the beach, we noticed a peculiar species of marine plant growing plentifully amongst the rocks. My wife took some with her to the boat, and, on our return to the bay, carried it with evident marks of care to the house. Some days after, when we had returned greatly fatigued and faint from a visit to Falcon's Nest, our provident manager presented each of us with a bowl containing a transparent jelly of the most agreeable flavour and delicious coolness. It was obtained from the sea-weed she had gathered on Shark Island, and is similar to that which is largely used at the Cape of Good Hope in the same way. Both Iceland and Irish mosses and algae are likewise used as articles of food.

Not only had the rabbits thriven in their new home, but

were now increased in number. The cocoa-nut palms and other young trees which we had planted were also in a healthy and flourishing state. From Shark Island we proceeded to Whale Island, and there also our plantations were found in an equally prosperous condition, and our whole colony exhibiting a satisfactory promise of future prosperity.



Shortly after visiting our island colonies, I resolved to go in quest of a tree sufficiently large and hard to furnish some large blocks of wood, with which I conceived we might be able to bruise our grain as well as to pound our plaster and fuller's earth. Ernest remained alone in the library, preferring books to the labour of an excursion which his brothers had undertaken.

I took the young bull and set out with the two young dogs to keep me company, and proceeded along the river side, so as to take a survey of the fields of manioc and potatoes, which

lay in that direction. I anticipated seeing abundant evidences of an approaching harvest; but, to my great disappointment, I beheld a scene of utter desolation. I discovered, by their footprints, that we owed the destruction of this important branch of our provisions to the swine. Bran and Tray, my two companions, soon startled up the depredators—our own great sow and a numerous litter of young pigs. I was so



angry at the mischief they had done, that I slaughtered the two foremost young porkers, while the rest made off and disappeared, helter-skelter, into the wood.

I selected and marked trees suitable for my purpose, and, throwing the two pigs across the buffalo, turned towards home. My wife was so grieved and annoyed at the account which I gave her of the irreparable injury they had done, that she could scarcely be induced to look on the spoils of the destroyers.

Myself and Ernest were the sole companions my wife had to entertain at dinner; and, as evening advanced, we began to feel somewhat anxious at the lengthened absence of the boys, when Jack was descried advancing at a rapid pace on his ostrich, followed, at considerable intervals, by Fritz and Francis, who had the charge of the spoils of the chase, each having attached to his saddle-bow a well-filled sack. The contents of these turned out to be of a very miscellaneous description. They produced various platipus, ondatras, a kangaroo, a musk-beaver, some half-dozen musk-rats, and sundry other captures, and all the three young sportsmen were impatient to begin the account of their expedition.

The kangaroo, of which we had only seen as yet one specimen, attracted general observation, and set our philosophic Ernest to reason on its peculiarities and very curious formation. Among the contents of the bags, I was also much pleased to find the carding-thistle, as it was a valuable addition to my working expedients. There were also cuttings of cinnamon and sweet potatoes, and other contributions to our stock of vegetable food, all of which were hailed by my wife with delight.

I had arranged, in my own mind, a plan whereby our labour in skinning the kangaroo might be sensibly abridged. I directed the boys to suspend it by the hind legs at a convenient height. With the help of a large syringe, which I found in the surgeon's chest, I made a sort of air-pump. Then, making a slight incision in the skin and inserting the point of the syringe into this, I tied the skin tightly round it, and gradually forced the air inwards, blowing out the kangaroo into a shapeless mass. I then directed the boys to beat it with a flat board, so as to disengage such parts as still adhered to the carcase, after which, on ripping up the body, the skin came off whole without the slightest trouble or further exertion. We skinned the whole of the animals the boys had brought with them in the same manner. Practice, as usual, increased our dexterity, so that in a short time what had formerly been a tedious and unpleasant operation could be finished with rapidity and without discomfort.

The following day we started to cut down one of the trees that had been marked out for use, taking with us the requisite supply of ropes, saws, and hatchets, and yoking the buffaloes

to the waggon to bring it home. We soon had it brought to the ground, and, after topping off the branches, we cut it into blocks of about four feet long. Of these I made wooden mortars, into which I fitted the large bones of the whale as pestles, and then constructed a number of levers by means of which the whole could be put in motion at once. Thus, one of us could do as much work as the whole united force of our colony was able to effect before.

Our grain had now to be reaped, our potato and manioc-roots to be gathered; and the time was at hand when the herring-shoal would reach the coast, with its train of white fish. We scarcely knew what to do first. We were, in truth, burdened by our riches, and my wife lamented to me the impossibility of overtaking all the work before us. We knew from experience that in the dry soil, from whence all moisture so rapidly evaporated, both the potatoes and the manioc-roots might be safely left while we looked after our cereal harvest; and for the latter we adopted a more rapid method, and one better adapted to the climate than our old Swiss practice.

We prepared a threshing-floor adjoining the Rockhouse by levelling a sufficient area, upon which we poured water, and then beat it flat and hard with large mallets. When the sun had dried it, the same operation was repeated until we obtained a solid floor without a single crack, and almost as hard as solid rock. Having done this, we moved to our corn-field. I set all to work immediately, and, taking myself as many stalks as I could grasp in my hand, I cut off the ears and threw them into a basket. "There," said I to Fritz, "is the Italian mode of reaping." My wife thought this process very lazy and somewhat wasteful; but I considered that we had no need of the straw where fodder was so abundant, and dry grass could be gathered, at any time, as much as we wanted. Hamper after hamper was filled with the rich ears of grain, and, when the hamper was completely loaded, the whole was transferred to Rockhouse. The same operation was repeated till nothing remained but the long straw, partially trodden down by ourselves whilst reaping.

My wife and Ernest spread out the grain upon the threshing-floor we had prepared while we were getting ready the cattle for the next proceeding. The boys were speedily in the saddle, and the onagra, buffalo, and bull coursing rapidly

round over the grain, while Ernest and I busied ourselves with pitchforks, throwing it under their feet, so that it might be equally trodden out and effectually threshed. Although the boys thought it excellent sport to gallop about on their chargers among the grain, they made no secret of their belief that such a mode of threshing might serve very well for a day's pastime for themselves, yet that it was but little calculated to forward the harvest-work I was engaged in. I volunteered no explanation, but waited, with unperturbed countenance, till the result of my plans would show who had the best right to laugh. On seeing the buffalo stretching out his long tongue and gathering a bundle of grain for a single mouthful, I reminded my family that it would be easy to prevent this did I think it right to do so; but one of the lessons of Divine benevolence in relation to the brute creation given us in the Old Testament shows the antiquity of the very mode of threshing we had adopted: "Thou shalt not muzzle the ox that treadeth out the corn." This remark reconciled my wife to the plan, and its really effective results soon silenced the mirthful scoffers.

By adopting the simple old practice of throwing up the threshed grain with our shovels at morning and evening, while the land or sea-breeze blew strong, the chaff was eventually separated from the grain. The maize was subjected to a different treatment. Leaving it to dry in the sun, we detached the grain by striking it with leathern thongs, by which means we avoided the necessity of winnowing, and preserved the soft leaves which my wife proposed to use in stuffing our beds.

On visiting our fields soon after her stores of grain had been housed, we found them covered with flocks of quails and other birds, a number of which we did not fail to secure. We took care afterwards to look for them in succeeding years, so that they might be regarded as the second harvest which we reaped from our fields.

Our agricultural operations were scarcely finished when the herrings made their appearance in Safety Bay. We were now less dependent on them than formerly; however, we caught a sufficient number to salt a caskful, and prepared a small quantity smoked and dried, as they furnished a pleasant change to our winter diet. We attached greater value to the

sea-dogs, from which we procured the skins from which our isinglass was chiefly obtained, and the small bladders that were applicable to a variety of uses.

CHAPTER XXXIV.

THE KAJACK.—THE STORM.

WE had now leisure to complete, and test the utility of, the kajack. Fritz having seated himself in it, armed with a harpoon for his trident, and furnished with an ample array of offensive and defensive weapons and equipments, his brothers drew the light craft to the bank of the river, where it descended, by a gentle slope, into the water, and, launching it with all their force down the bank, they set up a shout of triumph as it slid gracefully into the sea; and Fritz, retaining his scat, and skilfully preserving his balance, now plied his oars, and glided swiftly over the water. Feeling himself completely master of the light kajack, he moved it about in a series of skilful evolutions, much to our admiration and delight.

We hailed the successive feats of the young craftsman with shouts of applause, and our expressions of gratification at length so excited him, that he became lost to all fear, and he attempted the ascent of the Jackal River. By the constant use of his oars, he was able to advance some distance; but soon his utmost efforts seemed only able to prevent his being violently borne back in the rush of waters, and his strength seemed at length completely exhausted. Losing his presence of mind, he tried to turn the kajack, when in an instant it was swept down by the stream, and, dashing out into the bay, disappeared from our sight. Rushing to our canoe, I leaped in, followed by Jack and Ernest, while Francis stayed with his mother, who felt that all her worst fears were about to be realized. We proceeded at our utmost speed, plying both the wheels and oars, but the rocks intercepted our view, and when we reached the open sea, where the current of the river mingled with its waters, we looked in vain for the kajack. We rowed for some time about the bay, looking eagerly in every direction, with the keenest sense of anxiety

and alarm, none of us venturing to give expressions to our fears. Suddenly I saw a light cloud of smoke rise into the air, followed by the distant report of a pistol. "There is Fritz!" I exclaimed; and presently a second light column of smoke rose from behind a low rock in the bay. I fired off a pistol as a signal to him, and to this he replied in the same manner. We directed our course towards the rock, and, after a smart pull of about a quarter of an hour, we came in sight of Fritz, who was tranquilly resting on the rock, with a large morse, or sea-cow, lying dead beside him. He had struck it with his harpoon, in the vicinity of the small island where we found him. The pistol-shot which had attracted my attention was fired by him at the creature's head.

The morse is a native of the Northern Seas; but these inhabitants of the Polar regions are frequently driven far beyond their usual localities by storms. There is, however, also a species of the cetacea, known by the name of the Dugong, commonly found in the neighbourhood of the Cape of Good Hope. The morse frequently attacks its assailants with great fury, and I told Fritz that his prize was not worth the danger he had incurred, for, had it assailed his light kajack with its formidable tusks, his escape would have been impossible. The ivory is the only thing for which this animal is ever prized; but Fritz, like other heroes, was inclined to think the glory of the capture enough, and he declared his resolution of affixing the morse's head to the front of his kajack, and giving to his boat the name of the Morse.

I wished to take Fritz into our canoe, but he preferred returning in his own light kajack. He proposed to perform the duties of marine courier, and announce to his mother our approach.

Before leaving the island, I had observed an unworfted appearance in the sky, and we had not proceeded far on our way homeward when a violent storm burst over us, accompanied by torrents of rain. Fritz was already far beyond recall, and I greatly regretted having allowed him to quit us. We put on our swimming-dresses, which we had with us, and secured ourselves to the boat, so as to prevent our being washed overboard. We commended ourselves to the protection of God, and, as it was no longer possible to direct the course of our

little vessel, we were compelled to abandon it to the influence of the winds and waves, which rose in mountains, tossing about our slight bark as if they would pitch it heavenward, and swallow it the next moment. The storm, however, proved to be one of those hurricanes chiefly felt in tropical latitudes, and which speedily exhaust their fury. My heart was filled with gratitude when I saw that the violence of the tempest was passed, and the boys now united with me in thanksgiving to God for so great a deliverance.

But now that I had leisure to look about me, my heart began to give way once more when I thought of Fritz and his frail kajack, although I felt that the same Providence that had watched over us was fully able to rescue him also. Fortunately, we were within sight of Safety Bay, and, as soon as the subsiding waves admitted of our exertions, we made, with as much speed as possible, for the land. When we once more entered the harbour, the first objects which met our eyes were my poor wife, with Fritz and Francis kneeling beside her on the beach, praying for our safety, and thanking God for the deliverance of our boy. Our reception at landing may readily be conceived. Such was the delight of my dear wife at having us all once more safely beside her, that she did not give way to one reproachful reflection.

This sudden tempest had provided us with considerable work. The rain had fallen so abundantly, and with such violence, that the river had overflowed its banks and done considerable damage. Some of the embankments along its margin had been swept away, and required immediate repair. Our garden also had materially suffered.

CHAPTER XXXV.

EXPEDITION TO THE SAVANNAH.

WHILE we were engaged in our quiet round of domestic occupations, and continued our abode at Rockhouse, one night I was awoke by a terrible squeaking and barking, as if all the jackals and other denizens of the forest had united to invade our domains. I rose in great alarm, and, seizing my gun, rushed to the door. Fritz had started up at the same

time, and I found him already half-dressed and armed. We both ran out together, and found that the cause of this untimely disturbance had originated in the irruption of some of the stray pigs into our neighbourhood. Three of them had been seized by the ears by our dogs, and were now testifying, in the most unequivocal terms, their dislike to such forcible detention. We had to use some degree of exertion before we could procure their release.

The intruders had found their way across by means of the beams on which the planks of the bridge were usually laid. This discovery determined me on the immediate construction of a more effectual barrier against their inroads. I had frequently revolved in my mind the substitution of a draw-bridge for our first structure, and I now decided that it should be no longer delayed. We erected two uprights of great strength, with pulleys attached to them, through which ropes could be passed, and placed two others on the top of these, suspended midway, so as to act as levers. We had little difficulty in making the beams on our side of the river move on pins passed through them as on a hinge. The other ends we cut through obliquely, so that they would still rest firmly, when down, on the pieces secured on the opposite side, and, having fastened all the planks which had hitherto been left loose, we were in possession of a drawbridge. Its novelty was a source of great delight to the boys, and, for some days, the pulling it up and down formed one of their chief diversions.

As the season was suitable, and an occasional change of occupation advantageous to us all, I offered no objection when the boys proposed a new expedition. Fritz begged of his mother to give him some bear's flesh to make pemmican. This is a highly esteemed preparation among the North Americans, and an especial favourite with the fur-traders of Canada, when they go off on their trading excursions among the Red Indians. It consists of bear's or goat's flesh beat up into a sort of paste, which forms a very nourishing diet. A very small portion suffices for a meal, and it is thus the most convenient food for travelling. When Fritz had obtained the needful supply of bear's flesh, the boys set to work to prepare it into pemmican. It was crushed and then pounded, and passed through various compressive processes, until it was

reduced to less than half the original bulk, and entirely satisfied the young travellers, who found it by no means unpalatable.

Evidently, something unusual was in view. Sacks, hampers, and a variety of other utensils were got ready. The old sledge was brought out and mounted on cannon-wheels. A tent also was taken; and the kajack was placed on the sledge, along with an abundant supply of ammunition and provisions.

The morning of departure at length arrived. On getting up to see them away, I observed that Jack carried off very mysteriously some of our European pigeons, which he had secured in small wicker-work cages. Ernest, who had been engaged in close converse with his brothers for some time, stated his intention of staying at home. When all the preparations of our travellers were completed, a hearty repast was made, during which I gave them such good counsel as I considered suitable to their present movements, but to which they paid just about as much attention as the council and advice of experience usually receives from the young. Soon after, they started, Fritz and Francis mounted on the onagra and buffalo, and Jack on his ostrich.

I now set about erecting some machines for crushing and compressing the sugar-cane, in order to obtain the sugar in some more manageable form than we had heretofore been able to do—a thing which my wife had long considered desirable. I constructed three vertical cylinders, to which I adapted some of the wheels originally designed for the intended sugar-work at the new colony for which our ship had been bound. This could be set in motion by harnessing one of our buffaloes to it, so that much personal labour was thereby avoided, and we soon had completed an efficient apparatus.

Thus Ernest and I found abundant and agreeable occupation. As we were sitting, in the evening, after a day laboriously and industriously occupied, chatting together, at the perch of our comfortable grotto at Rockhouse, our conversation naturally turned on the absent members of the community; and, while my wife and I were wondering and guessing as to what they might then be about, Ernest surprised us by saying, "I think it will not be long before we have news of my brothers. To-morrow morning, my dear

parents, I hope to be able to communicate to you the news of where they are and what they are doing."

While we were thus engaged, a bird alighted on the dove-cot and entered. It was already so dark that we could not discern whether it was one of our own pigeons or some strange bird; and, as it was long past the usual hour for their retiring to rest, I feared it might be some dangerous intruder. But Ernest at once said, "Shut up the dove-cot, shut it up! What would you say if this pigeon-messenger was the bearer of letters from my brothers?" We congratulated the boy on the happy expedient by means of which a communication had been opened up between the hunters and ourselves. Other missives reached us from time to time, so that we were kept informed of the adventures they experienced, and which they did not fail to recount to us more fully when they returned.

After passing the bridge, they had pursued their route rapidly towards the structure to which we had given the name of the Hermitage. As they drew near, they heard, to their great surprise, sounds resembling the laughter of the human voice, mingled with a low barking whine. The animals stopped abruptly. The wild laugh was renewed at intervals, and so terrified the snagra and buffalo that Fritz and Francis were obliged to dismount and hold them. Even the dogs seemed to recognize something mysterious and frightful in the sound. As for the ostrich, it fairly wheeled about and set off in the direction of Swan Lake, notwithstanding all Jack's efforts to prevent it.

"It is something unusual," said Fritz; "the animals are as agitated as if a tiger or a lion were in sight." Taking hold of both the animals, he directed Francis to advance cautiously and try if he could ascertain what it was, bidding him return instantly, so that they might either concert a plan of attack or escape, if it was an enemy too dangerous to be assailed.

Francis seized his arms, arranged his pistols conveniently in his belt, looked to the priming of his gun, and then cautiously approached the spot from whence the strange sounds proceeded. He had scarcely advanced some twenty paces, when he saw an enormous hyena, which was rending the carcass of a sheep it had slain, while every now and then it uttered the hideous sounds which had alarmed the animals.

The approach of the young hunter did not disturb the brute.

As the branches rustled on his putting them aside, it glared in the direction with its flaming eyes, but did not move from its prey. Nothing daunted by the sight, Francis did not wait to summon his brother to his aid, but, taking deliberate aim with his gun, fired, first the one barrel and then the other, and was so fortunate as to wound it in the breast and break one of its fore-legs. The dogs now rushed in, and, although the hyena was so much disabled, it defended itself fiercely, and a terrible combat ensued.

The moment Fritz heard the first shot, he hastened to secure the onagra and buffalo to a tree, and then hurried to his brother's assistance. Before he arrived, however, the dogs were in close combat, so that he dared not venture to fire for fear of injuring them. Besides, the hyena was too much disabled to be a match for our two powerful dogs, and in a very short time Bran and Tray had so far mastered it, that the boys were able to rush in and put an end to the combat. They now proceeded to examine their faithful dogs, who had received some severe wounds. They were engaged in dressing these when Jack returned, having at length, with great difficulty, succeeded in checking the retreat of his ostrich. Although he had been prevented from joining in the attack, he was not the less frank and hearty in testifying his admiration at the courageous conduct of his brothers. They took their prize to the Hermitage; but the skinning and preparing the hide could not be undertaken that day.

After passing a pleasant night, they launched their kajack on the lake and captured some young black swans, the old ones proving too strong and agile. They also captured a beautiful heron, and started a tapir, the enormous size of which greatly puzzled and somewhat alarmed them. Armed only with bows and arrows, in the use of which they were growing very expert, they brought down several cranes. Jack and Francis captured two demoiselles or Numidian cranes, very graceful birds, and easily domesticated; and Fritz, with the help of his eagle, obtained possession of a bird of paradise, the exquisite plumage of which he greatly admired.

They passed a night at Prospect Hill, somewhat uncomfortable, by the howling of jackals, and surrounded by abundant indications of the destructive manœuvres of the monkeys.

They went afterwards to the defile, where they were much surprised at the scene they beheld, and they forthwith despatched one of their letter-carriers with a message, begging me to lose no time in hastening to the spot.

I did not lose a moment in getting ready my own arms and accoutrements, and, saddling the bull, I set off at its ut-



most speed, requesting Ernest and my wife to follow. My sons were surprised and delighted at my prompt appearance. The devastation to which they had referred exceeded my worst anticipations. The sugar-canes were trodden down and utterly demolished. The trees in the vicinity had been stripped of their bark, and the leaves in many places torn off. The palisade, which had cost us so much trouble to erect, lay a complete wreck. From the footprints that were observed,

I had no doubt but what we saw had been the work of an elephant.

Ernest and his mother reached us in time for dinner on the following day, bringing with them the waggon and cow and the young ass, together with such necessaries as I had directed them to provide for an encampment of some duration, and we set to work in the construction of such a barrier across the defile as should effectually relieve us from further danger or apprehension from invasion on this side. We were engaged on this work a considerable time, which we varied by occasional excursions in the kajack, or explorations into the neighbouring regions.

The boys made several important discoveries in the course of their wanderings. Amongst these I was especially delighted to recognise the cocoa bean, of which chocolate is made, and the banana, which has been called by travellers the king of vegetables, and has even been pronounced by a distinguished naturalist to include, in its nourishing and palatable properties, all that is needful for the food of man.

The *musa sapientum*, or plantain, of which the banana, or *musa paradisiaca*, is a variety, has a fruit used to a prodigious extent by the inhabitants of the torrid zone. In equinoctial Asia and America, in tropical Africa, in the islands of the Atlantic and Pacific Oceans, the plantain is one of the most interesting objects of cultivation for the subsistence of man. Three dozen of the fruits, used instead of bread, will maintain a person a week, and it appears better suited for warm countries than farinaceous food. Indeed, the plantain is often the sole support of an Indian family. The fruit is produced from among the immense leaves in bunches, weighing thirty, sixty, and eighty pounds, of various colours, and of great diversity of form. Generally, the characteristic of the fruit to a European palate is that of mild insipidity; some sorts are even so coarse as not to be edible without preparation. The greater number, however, are eaten in their raw state, and some varieties acquire, by cultivation, a very exquisite flavour, even surpassing the finest pear. In the better sorts the flesh has the colour of the finest yellow butter, is of a delicate taste, and melts in the mouth like marmalade. To point out all the kinds that are cultivated in the East Indies alone would be as difficult as to describe the varieties

of apples and pears in Europe. Some cultivators at Batavia boast of having eighty sorts. In the West Indies, plantains appear to be held even in greater esteem than in the Eastern world. The modes of eating them are various. The best sorts are served up raw at table, as in the East Indies, and have been compared, for flavour, to an excellent reinette apple after its sweetness has been condensed by keeping through the winter. Sometimes they are baked in their skins, and then they taste like the best stewed pears of Europe. They are also the principal ingredient in a variety of dishes, particularly in one called mantégue, which is made of slices of them, fried in butter and powdered over with fine sugar. Of the many cultivated sorts that called by the French *la banane musquée* is considered the best; it is less than the others, but has a more delicate flavour.

In the climates that suit it, there is no vegetable plant more highly prized, independently of its being an indispensable article of food. A tough fibre, capable of being made into thread of great fineness, is obtained from its stem; and the leaves, from their breadth and hardness, form an excellent material for the thatch of cottages. An intoxicating liquor is also made from the fruits when fermented, and the young shoots are eaten as a delicate vegetable. A variety termed *M. textilis* furnishes the valuable thread known as Manilla hemp.

The banana of hot countries is a mere variety of the plantain, distinguished by being dwarf with a spotted stem and a more delicate fruit. Botanists call it *musa paradisiaca*, in allusion to an old notion that it was the forbidden fruit of Scripture. It has also been supposed to be what was intended by the grapes, one bunch of which was borne upon a pole between two men, that the spies of Moses brought out of the Promised Land. The only argument of any importance in support of the latter opinion is, that there is no other fruit to which, as regards weight, the language of Scripture will apply.

My wife, who was ever mindful of her garden, no sooner heard the praises of the banana thus detailed than she began to wish for some of the seeds to plant. She also desired to cultivate the cocoa bean. I told her that the banana was best propagated by slips, and that I believed the cocoa beans

would not grow unless they were set immediately after they were gathered. However, Fritz proposed to start the following morning in his kajack and bring home the needful supplies with a view to make these valuable additions to our garden. Abundant occupation was found during the day in getting everything ready for our departure; and towards evening the kajack of Fritz made its appearance with a slight raft behind it loaded to the water's edge. The three boys hastened to welcome the voyager home again, and to unload his valuable cargo. The most remarkable of his day's products Fritz considered to be a magnificent bird, of which he felt very proud. I recognised it to be a sultan cock, the most beautiful of all waterfowls. Its brilliant green and violet plumage was a source of much admiration, and my wife especially prized it as an addition to her poultry-yard, where it became ere long completely domesticated.

In his day's excursion, Fritz had proceeded to the mouth of the river, and rowed up a considerable way. In his progress he had passed through magnificent forests of lofty trees, and had encountered flocks of wild turkeys and other birds, whose rich plumage and singular notes gave beauty and animation to the scene. He had passed a group of elephants, and more than once discovered the jaguar lying crouched on the steeper banks. The breadth of the river secured Fritz from such enemies on either side; nor did he deem it advisable to challenge any of these foes by making use of his gun. He had a very narrow escape from the attack of an alligator or crocodile, and obtained a lesson in natural history which he had no desire to repeat. The conclusion which we arrived at was, that this region beyond the defile was occupied by fiercer and more formidable animals than we had yet encountered.

Fritz had killed a bird of considerable size, which I took at first to be a young flamingo, but it turned out to be a young cassowary, the first I had seen in the island. This bird is remarkable for its extraordinary size and for its plumage—so short and fine, that it seems rather to be hair than feathers. I should have liked to have had it alive, as an ornament for our poultry-yard—and it was so young that it might have been tamed—but Fritz's inevitable aim had decided otherwise. The *struthionide* are, perhaps, the most

interesting family in the whole class of birds. When we look at the bisulcous ostrich, with its large ventricle between the crop and the stomach, and its vast receptacle where the urine accumulates, as in a bladder, the ancients may be well pardoned for their doubts as to the place of the animal. The name of camel-bird, by which it was known, not only to the Greeks and Romans, but also to the nations of the East; the broad assertion of Aristotle, that the ostrich was partly bird and partly quadruped; and that of Pliny, that it might almost be said to belong to the class of beasts, are but so many proofs of the popular recognition of a well-authenticated zoological truth. In the *cassowary*, the *emew*, and the *apteryx* the covering of the body becomes something between feathers and hair; in the cassowary and emeu, the wing dwindles rapidly; and in the apteryx this leading characteristic of the bird is reduced to a mere rudiment; while all the lower extremities, with which they kick like quadrupeds, are most highly developed.

The result of Fritz's experiences in the voyage up the river had not in any way discouraged him in the use of his kajack, and when we were ready to set off homeward, he proposed going round Cape Disappointment, in order to obtain a little more insight into the outlines of the coast. While we were steadily pursuing our homeward route, various attractions delayed him, so that we arrived at home nearly about the same time, although Fritz had a short route and an unencumbered carriage compared with us. He brought home with him two plants, in one of which my wife was delighted to discover the caper-tree; the other, bearing numerous small white flowers, and leaves somewhat like the myrtle, I had no doubt belonged to the same family as the Chinese tea plant. The latter discovery was a source of great satisfaction; for, whilst perfectly satisfied, and contented with our lot, we still indulged the idea that we might some day hail a European vessel, and turn to profitable account the various stores of skins, furs, cotton, spices, and other articles of native produce which were annually accumulating in our stores.

CHAPTER XXXVI.

A GENERAL REVIEW OF THE COLONY.

TEN years had passed away, varied only by incidents and adventures such as those already narrated. We had been engaged throughout the period of our residence on the unknown land, whither we were so unexpectedly driven, in conquering and taking possession of its wealth. Our habitations at Falcon's Nest and Rockhouse were pleasant, commodious, and admirably suited to all the requisites of the favoured climate and country where our lot was cast. We found year by year our experience of the climate, and our knowledge of the many natural productions of the country, increasing, while the completion of all the great undertakings, which had kept our hands so fully occupied during the early seasons of our enforced settlement on an unknown and uninhabited coast, left us with abundant leisure, and required only a pleasant amount of exertion to keep our erections in repair, or to add to them such conveniences as were best calculated to increase our comfort.

Ten years also materially altered my assistants. The youngest of the boys, who, when we landed, were only a source of trouble and anxiety, had, during that time, grown up to be strong and active youths, as capable of any amount of exertion or fatigue as myself, and having acquired nearly all their knowledge and habits of life in the strange country which my wife and I were sometimes tempted to contrast with the remembrances of our native land, their hopes and anticipations were entirely centered in our new possessions. Fritz was now a hardy, vigorous young man of twenty-four years of age. Ernest and Jack had also attained to manhood; and Francis was a lively and active youth of eighteen. They all had fine dispositions, and we had the inestimable advantage of being able to train them up without the risk of any contaminating influences of evil companions, or the temptations of civilized life.

Thus happiness and contentment reigned throughout our cheerful colony, and a rich abundance greatly exceeded our utmost wants. As our works of necessity, dictated by the indispensable requirements of shelter, food, and raiment

were gradually completed, we continued to add to our comforts by embellishing our different dwellings. Rockhouse especially received all the internal improvements we could devise, as it annually became our winter residence, and was, besides, greatly increased in comfort and elegance by the additions we made during the summer.

The ground in the immediate vicinity had at first been a sterile and barren waste. Under our united labours it gradually became fertile and productive. We laid out a garden on a gentle declivity at the foot of the rocks, which sheltered it from the north wind. We constructed a stone conduit to bring the water to our kitchen-garden from the river, to which it was led back after it had passed round our vegetable beds. We dug a pond above the garden, into which the conduit poured the water, and, by means of a sluice, we were able to disperse it in little channels to water the garden. The pond was also useful to preserve small fish and crabs for use. We raised embankments to protect the garden from any sudden overflow of the river, and from the water issuing from the rocks after heavy rains. We erected a colonnade along the front of our grotto, up which the vine and other climbing plants, and beautiful flowering creepers, were trained. It was made in the most simple and primitive way; a row of strong bamboo canes, planted at equal distances and united by a plank of wood at the top cut into arches between the canes; others were placed sloping from the rock, to which we fastened them by iron cramps; these were covered with sail-cloth, prepared with the elastic gum, and well secured to the plank. At each end of the colonnade we erected a very elegant pavilion, something like a Chinese pagoda. They were exactly square, supported on four columns—the roofs terminating in a point, and resembling a huge parasol. There were fountains in the middle; the basins, breast high, were formed of the shells of two turtles. Shells of the most brilliant colours, and curious and various shapes abounded on the shore. Some of these, of the most dazzling beauty, were placed round the pipe which brought the water to the basin, and which had been plastered with clay; from thence the water was received into a *volute*, shaped like an antique urn, and again was poured gracefully into the large turtle-shell; a small channel conveyed it then out of the pavilions. We also con-



“They also captured a beautiful heron.”—P. 195.

structed a poultry-yard, at a sufficient distance from our house to save our sleep from disturbance, and still so near that we could easily tend them. We carried the water from the basin of the fountains through the poultry-yard, which enabled us also to have a little pond for our ducks.

All our outposts were no less ornate and convenient. Our labours at the Hermitage and Prospect Hill were finally completed to our entire satisfaction. We had made our little Hermitage, after the fashion of the Swiss chalet, of bark, with a roof nearly flat and covered with stones, to secure it against the winds. Our structure at the Defile also fully answered the purpose for which it had been reared with so much labour, and we found it occasionally a pleasant change to remove to the station-house we had erected there, and to make it a point of departure in the various expeditions into the country beyond, in which our love of novelty and adventure found abundant gratification.

Our island colonies had also succeeded beyond our highest hopes. Both Shark Island and Whale Island were now covered with thriving palms, and other valuable fruits, and occupied by our colonies, which multiplied there beyond the reach of any assailants, so that we could at any time command abundant supplies without labour or delay.

Our European fruit-trees had also thriven most satisfactorily, and the avenue which we had planted from Falcon's Nest to Family Bridge, was now a luxuriant orchard, under the delightful shade of which we could pass, in the hottest season, from one habitation to the other.

Throughout the whole extent of the space between the two dwellings our eyes were now regaled with the cocoa-nut and other palms, the bread fruit-tree, the sugar and cabbage-palms, and numerous other fruit-trees. We found, when our European fruit-trees began to bear, that the burning sun, and the long continued drought, was ill-adapted for the tender nurslings of a green-house, but their failure was amply compensated for by the abundance of the native productions. Bananas, dates, figs, guavas, cocoa-nuts, and many other delicious fruits, appeared in continuous succession throughout the season, and attracted whole flocks of birds, which pillaged our stores almost as rapidly as they ripened, and were far too numerous to be baffled by any attempts we

could make to lessen their depredations. There was, however, abundance for all. We could always, with a little care, obtain as much ripe fruit as it was possible to consume, or desirable to preserve for the winter.

It almost seemed as if there was nothing left us that we could desire; yet many a look had I cast towards the sea in the hope of espying a distant sail, and once more greeting other human beings from whom we had been so long shut out. The same feeling animated me in continuing to store up cotton, spices, ostrich-feathers, pearls, &c., in the hope that some day they might prove a source of wealth to us, and enable us to purchase permission to return to Europe, or to acquire such additions to our supplies as might become requisite. Such feelings were little sympathized in by the boys. The island was their universe, and Rockhouse was a palace they would not have exchanged for any the world contained.

"Return to Europe, father!" Fritz would say. "To leave our beautiful winter dwelling, and our charming summer residence; our dear, good animals; our crystals of salt; our farms; so much that is our own, and which nobody covets! Dear father, could you consent to leave such a spot?"

My dear wife and myself were already beginning to feel indications of approaching age; and, with our own more vivid recollections of the past, it was impossible to chase away some haunting anticipations for the future. I could not help feeling distressed at the prospect of my dear children's solitary old age. If the place of our settlement was to be our final abode, some one of us must be destined to be the survivor of all the rest; and, to my mind especially, the thought frequently recurred, with sad forebodings, and made me pray to God that He, who had cared for us amid so many dangers, and surrounded us with so many mercies, would avert from any of us so dire a calamity as to perish in solitude amid scenes which had been the source of so much enjoyment and happiness. But even my wife, like the rest of my family, was contented to remain on the island, where it seemed we were destined by the will of God to dwell.

"Why should we return to Europe?" said she. "There is nothing that we can desire here now, since I have got flax, cotton, and a wheel. The children lead a life of health,

activity, and innocence, and live with us, which might not be the case in the world. During ten years we have been happy here, and what could we find in Europe to compensate us for what we leave here?—poverty, war, and few of those things which we enjoy now in abundance. To be happier than we are cannot be hoped for; and I feel no cares about my children.” I represented to her the dismal prospect of our sons if they were left alone in the island. She agreed with me, but could not resolve to leave it; she hoped God would send some vessel to us, which might leave us some society; and, after all, if our sons were left, she pointed out to me that they had our beautiful pinnacle, by means of which they could at any time, of their own accord, abandon the island.

CHAPTER XXXVII.

A NOCTURNAL ENCOUNTER WITH LIONS.

IF time had ripened the moral and physical strength of my children, it had also developed in their young minds a spirit of independence which was not altogether in accordance with my paternal solicitude, and which rejected all control other than that which springs naturally from mutual affection. Often I passed days together without knowing what had become of one or other of them; and at last my wife and I began to get accustomed to their departure, either singly or in parties, on expeditions of which we had had no kind of preparatory notice.

Ernest had acquired a great taste for rambling and botanizing, and had communicated it also to Fritz; and they often made long excursions together. As they generally returned with some game, or some new fruit, we did not discourage them in these profitable expeditions. Sometimes they brought a kangaroo, sometimes wild ducks, pigeons, and even partridges. These were contributed by Fritz, who never went out without his gun and his dogs. Ernest brought us natural curiosities—crystals, petrifications, butterflies of rare beauty, and flowers, whose colours and fragrance no one in Europe can form an idea of. Sometimes he brought fruit, which we always administered first to our monkey, as

taster; some of them proved very delicious: Two of his discoveries, especially, were most valuable acquisitions—the guajaraba, on the large leaf of which one may write with a pointed instrument, and the fruit of which, a sort of grape, is very good to eat; also the date palm, every part of which is useful. Whilst young, the trunk contains a sort of marrow, very delicious. The dates are particularly good about half dried, and my wife immediately began to preserve them. My sons could only bring the fruit now, but we purposed to transplant some of the trees themselves near our abode.

One day Fritz had disappeared, and, as the absence of his kajack had indicated the route he had taken, we resolved ourselves into a sort of coast-guard, to watch for his return. After some little time, I descried in the distance a black speck dancing on the summits of the waves, and soon my telescope announced that the truant and his skiff were approaching the shore.

It appears that he had started off on an exploratory expedition along the western coast; nor had the voyage been without result, as, besides a full cargo in the kajack, there was a huge sack floating behind. After two hours' rowing, he found himself in front of a magnificent arch in the rocks, which nature in one of her caprices had apparently erected according to the strictest rules of Gothic architecture. The interior of the vault presented to the eye countless myriads of nests of the sea-swallow, the face of the rock being absolutely draped with them; they consisted of feathers, turf, and the filaments of plants, not arranged with very much art; but the most remarkable feature of the nest was a sort of saucer, in which these materials reposed, and which appeared to be formed of a grayish sort of wax. Fritz had carefully detached a few of these from the rock, and had brought them with him to see whether I could not turn them to some use. I told him that he had done very well, but that it would be very difficult to turn the nest to account, unless we could open commercial relations with the Chinese. In fact, these were the veritable edible birds'-nests held in high esteem amongst the higher classes of the Celestial Empire as an article of food, and consequently reckoned a valuable mercantile commodity by maritime nations. The gelatinous matter which forms the succulent portion of the nest is suffi-

posed, by some, to have been obtained from the meerscham so well known in the manufacture of tobacco-pipes; at least such is the opinion entertained by the people of Tonquin and the Delta of the Ganges, regions which furnish commerce with enormous quantities of these nests.

Having secured specimens of these singular productions, Fritz continued rowing along this delightful coast. He noticed several beds of strange shell-fish, which appeared to belong to the oyster tribe; the limpidity of the water enabled him to distinguish the tufts of filaments by which they were fastened to the rock; the size of these oysters was most extraordinary; one would have amply sufficed to form the repast of two ordinary men. He succeeded in detaching a few of them with his harpoon, and determined to land, with a view to enjoy some refreshment on shore. On opening one of the oysters, the progress of his knife was arrested by some hard substance, which he at length thrust aside, but he was astonished to see drop on the sand two or three pearls of great beauty.

I observed to him, that in this he had made a very valuable discovery, which hereafter might even obtain for us the thanks of some great nation; still, for the moment, I proceeded to remark, the pearls were about of as little use to us as the birds'-nests. I resolved, nevertheless, to pay a visit to this precious deposit at some future time.

After the discovery of the pearls, Fritz re-embarked, and continued his voyage along the coast. The next object of interest that met his view was the mouth of a broad river, whose banks were flanked by a rampart of marine plants, which gave them the aspect of a rich meadow, and at the same time sheltered a numerous population of aquatic birds, which rose on the wing as he approached.

Keeping to the western side of the bay into which this river flowed, Fritz espied a colony of marine animals, seemingly about the size of an ordinary sea-dog, and amused himself for some time in watching their gambols without being seen. He at last determined to try and obtain possession of one of them, so that he might study it more at his leisure; so, letting loose his eagle upon the prey he coveted, he proceeded to effect his purpose. The bird rose majestically in the air, and swooped down upon one of the handsomest of

the troop, and he arrived at the field of battle just in time to finish the creature with a blow of his axe. It was this that was attached to the kajack, and a question immediately rose amongst us as to what the animal really was. This Ernest at once answered by pronouncing it to be a sea-otter. "If that is the case," said I, "we shall have another very excellent article for commerce with the flowery land; for the mandarins are particularly partial to this kind of fur." It had cost Fritz, however, some amount of trouble to drag it through the sea, and, valuable as the capture might be, he was once or twice on the point of leaving it behind, had not curiosity urged him to persevere in carrying it home.

After the creature had been thoroughly examined and the inquiries relative to its habits had been exhausted, the conversation again turned upon the pearls. One of the boys asked me whether they were always of the same size and price? "No," said I; "the purity and value of the pearl depends upon the sort of ground which forms the oyster bed. When the ground is rugged, the pearl is cloudy and without lustre; on the other hand, when the bed is of sand, the pearls are pure and brilliant. It would appear," I added, "from the researches of the naturalist, that pearls are only found in oysters that have been pierced by a minute animal which feeds upon the shell; and that the pearl is formed from a calcareous matter secreted by the oyster to stop the hole made by its parasitical enemy." Fritz then demanded whether the oysters were obtained with ease? "By no means," answered I; "they are often sixty feet from the surface, and, generally, the shell is firmly attached to a rock. The fishers, who are trained from infancy, detach them by means of some sharp instrument, throwing them into a bag, which rises to the surface when filled. But, notwithstanding every care, the pearl fishery is fatiguing and dangerous. It is not rare to see the divers, at the close of their day's work, bleeding at the nose and ears." My children, nevertheless, all insisted upon braving these dangers; and it was resolved that we should commence the pearl-fishery forthwith, to which I readily assented, particularly as, according to Fritz, the oysters were to be obtained without trouble of any kind whatever.

All the family were soon occupied in preparations for this new undertaking, and I had the satisfaction of beholding a

collection of fishing apparatus as complete as it was possible for our limited sources to make it; and the first day on which the sky and the sea appeared favourable to our project, we set out.

Fritz acted as pilot. Placed alongside of Jack in his fragile skiff, he was charged with conducting the expedition through the rocks that lined the coast. We soon reached the arch discovered by Fritz, and we were struck with its imposing mass. It might be said to have been formed by the Titans with the fragments of the mountains with which they attempted to scale the heavens. An immense cloud of sea-swallows arose at our approach; but, encouraged by our immobility, these innocent denizens of the rock disappeared anew in their obscure retreats. When the expedition reached the entrance of the vault, an insatiable avidity took the place of curiosity; all the instruments at hand were set to work, and the nests tumbled in dozens into merciless hands. We, however, chose in preference the abandoned nests, so as to spare the eggs and the young of our harmless victims. Fritz and Jack showed themselves most energetic in this new species of pillage. Ernest and I went to work with more method. We attached ourselves to the lower regions of the rocks, and took care to clean each specimen as carefully as our time permitted. After a short time, the supply appeared to me ample, and, desirous of arresting this scene of destruction, I gave orders for the expedition to proceed to its destination. As the tide was rising, I determined to pass through the channel formed by the arch, the current enabling us to do so without the use of our oars. We were thus enabled to contemplate tranquilly the majesty of the spectacle before us. At intervals we observed immense caverns, the depth of which we were unable, from the obscurity, to determine, but which evidently were of great extent. It appeared as if the great Architect of the Universe had laid there the foundation of a gigantic temple, which His omnipotent hand had disdained to complete. These immense galleries had been taken possession of by various kinds of marine animals, the traces of which frequently met our view as we infringed upon their habitations.

Having passed without accident through this rocky vault, we entered one of the most beautiful bays that nature ever

formed. The shore was indented with a number of creeks, through each of which a limpid stream found its way to the sea. The country beyond had a smiling and fertile aspect, whilst towards the ocean the entrance to the bay was protected by a ledge of rocks that stretched from one point to the other, leaving only space to admit a good-sized ship; so that if a storm raged without, the waters within would remain in perfect tranquillity. The river discovered by Fritz flowed into this bay, and he had in no way exaggerated its grandeur or majesty. Here also was situated the oyster-bed, the more immediate object of our search, and near this we landed, determining to pass the night on shore, and commence our pearl-fishery early the following morning.

Accordingly at daybreak we proceeded to the point where Fritz had obtained his first supply of oysters; and, sure enough, there their fellows lay, visible, and almost within reach. It was, consequently, not long before we had secured a considerable number. This success induced me to continue the operation for two days, at the expiration of which period I had the satisfaction of beholding a goodly supply of the precious oyster heaped up on the beach.

On the last day of our pearl fishery, the idea occurred to us of penetrating into the adjoining forest. On this occasion, Ernest preceded us with one of the dogs, and we had not gone far before a shot and the disappearance of the rest of the dogs announced to me that game of some kind had been started. It appears that Ernest's dog had rushed into a thicket and was engaged in deadly strife with some savage animal that was still out of view. An instant after, Jack's dog was likewise engaged in the combat. Ernest advanced very cautiously, but all his projects were disconcerted by the sudden appearance of a ferocious wild boar, which, irritated by the dogs, had quitted its retreat, and was rushing straight upon poor Jack, who could see no better course to pursue than take to his heels. He fired instantly, but the ball only grazing his skin, served merely to accelerate the brute's career; and Jack, having stumbled and fallen over the trunk of a tree, was entirely at the mercy of his pitiless enemy, if the two dogs arriving at the same instant had not drawn upon themselves the rage of the infuriated savage. Jack, however, luckily escaped with a few contusions; and Ernest's

second ball was about to terminate the struggle, when Fritz's eagle, descending from the skies, like the crow of Manlius Corvinus, came down at the critical moment right upon the head of the boar, so that his master had time to advance at his leisure, and discharge his pistol between its eyes.

Casting a glance at the lair of the boar, Ernest was not a little astonished to see the dogs regaling themselves with the fragments of his repast, which consisted chiefly of a kind of tuber somewhat resembling a potato. Ernest had put half a dozen of these in his knapsack, in order that I might be able to report upon them. "Let me see," said I; "if my eyes and smell mistake not, Ernest, you have made rather an interesting discovery as regards our cookery. These tubers are genuine truffles, and of the most savoury kind."

Fritz, following my example, tasted one of the tubers, and asked me where the best truffles were found, and whether it was a fruit indigenous to European climates? I answered that the truffle was a fruit particularly abundant in Europe. Italy, France, and Germany produce great numbers of them. It is most commonly found in forests of beech or oak. Truffle-hunting requires neither lead nor powder; all that is required is a spade to dig them, and a pig to find them. The Italians have a kind of dog whose smell is so acute as to detect the truffles and indicate their proximity to the hunter." Fritz then asked me whether the truffle had no stalk or external leaf by means of which their presence could be detected without the use of animal instinct? "No," replied I, "they can only be discovered by their odour; and it is somewhat difficult to say, correctly speaking, whether a truffle is a root, a tuber, or a fruit; for its mode of propagation is a complete mystery to naturalists, and they are found of all sizes, from that of a pea to an apple. Usually the truffle is classed with the mushroom family, though it differs materially from all of them in many important respects."

Next day we were occupied in preparing the four quarters of the boar, the head of which we intended to preserve as a trophy for our museum. Night came on whilst we were engaged in smoking a portion of the venison for future use; and when the shades of night had fairly closed around us, a formidable growl issued from the depths of the forest, which echoed along the rocks of the coast. We were instantly on

the alert, and armed for any contingency. Fritz rowed off in his kajack towards the point whence the sound issued, the nature of which we had little difficulty in divining—it was, unmistakably, the deep-toned thunder of the lion's roar. Nor had we long to remain in suspense on this point; for, soon after, the dying light of our fire enabled us distinctly to



descry, seated on his hind legs like a cat, the king of the forest himself.

He appeared to have followed the carcass of the bear, and was now regarding with an eye of fury and desire the dogs in front of him and the ensanguined remains of our venison. Whilst I was yet in doubt what course to pursue with regard to our unwelcome visitor, a shot rang through the air that at first made me shudder from head to foot. It was the report of Fritz's rifle. The majestic brute made a terrible bound,

accompanied by a howl of pain, staggered, and fell to the ground immovable. "That was a masterly shot," I cried. "The animal has been hit in the heart, and will rise no more; remain here till I ascertain more certainly the position of affairs."

All this time we had been in the boat, a little way from the shore, as, though on land during the day, we sought shelter on the water during the night; a few strokes of the oar, however, carried me to the beach, where the dogs received me with signs of joy. I was advancing with much precaution, when I saw another lion appear in the same place, somewhat smaller than the first, but with an aspect still more ferocious. In two leaps it was beside the inanimate body of its companion, which it began to call with a plaintive voice. This was evidently a female, and, by good chance, it was not accompanied by its cubs; for in that case the encounter would have been doubly hazardous.

Whilst extended beside the other, it was licking its wound, and uttering from time to time a dismal howl. A second shot awoke the echoes of the coast; the ball had caught one of the front paws of the lioness, and it fell powerless at her side. Before I had time to fire, the dogs had sprang with fury upon the enemy, and then commenced one of the most sanguinary engagements I had ever beheld. The obscurity of the night, the howling of the lioness, and the baying of the dogs, made this scene one of the most frightful that could possibly be conceived.

The enraged monster of the forest, prompted by my inaction, seized one of the dogs with its unwounded paws, and the faithful animal was soon in the convulsive agonies of death. At the instant I ran to its aid, Fritz appeared on the field of battle with his unerring rifle, now, however, unnecessary. I made a sign to him to join me in an act of thanks for the protection Providence had vouchsafed to us in thus overcoming two such formidable creatures. Afterwards, we went to pass the two or three hours in our boats that still remained of the night.

Rising with the sun, our first care was to skin the two lions, an operation which, thanks to the invention of my air pump, did not occupy us more than two hours. The rays of the sun now began to develop such odours from our heap of oysters

that we were glad to resume our homeward course, and, hoisting our anchor, before sunset the same day we arrived without accident in Safety Bay.

CHAPTER XXXVIII.

BIRD-TAKING.—MOLUCCA PIGEONS.—SUGAR, TEA, COCOA.

THE time had now arrived for the appearance of the black-birds and ortolans. We resolved to leave Rockhouse, which had become our established residence, and remove to Falcon's Nest, where I intended to secure as many of the birds as possible for the coming winter. The inhabitants of the Pelew Islands capture birds a great deal larger and stronger than ortolans by means of limed twigs; and I intended to make, with gum elastic and oil, a sort of glue that would save us a good deal of powder, which we found it necessary to economize. I sent Fritz and Jack to the wood of India-rubber trees, where I thought they would find a sufficient quantity of the gum, as we had made large incisions in the trees, and placed gourds under them to receive the gum.

Our messengers brought us two gourds of India-rubber, and another half full of turpentine; besides which, Jack produced from his buffalo-pouch a root of anise, and a root wrapped up in leaves, which he called "monkey-root."

"I do not know of what importance this monkey-root may be to us," said Fritz; "but I can assure you that it far surpasses manioc, both in smell and flavour. We discovered it close by the farm-house, where a company of monkeys were regaling themselves on it. Curious to judge for ourselves of the merit of an article they seemed so very fond of, we resolved to disperse them. The report of a gun would have scattered the whole flock; but I remembered your instructions not to waste powder, and we contented ourselves by driving at full gallop among the affrighted troop, who fled in all directions. We tasted the root, and, finding it very delicious, I wrapped some pieces up in leaves, and brought them to you, to see whether you know any other name than 'monkey-root' for it."

I took up the root, and, after having tasted it, I told my

sons that their discovery was really a treasure, for I believed that it was the "ginseng," the sacred root of China, which popular superstition had made a sort of universal panacea. The Chinese have but little faith in any medicine that has not this combined with it. Extraordinary properties have been ascribed to it; it is not only considered a universal remedy for all maladies, but is spoken of in the highest terms as a specific in particular cases. Volumes have been written in Chinese upon the supposed virtues of this root; it is affirmed that it wards off fatigue, invigorates the enfeebled frame, restores the exhausted animal powers, makes old people young, and so on. The weight in gold has been given by the Chinese for this root, which we are told grows only in the most remote and inaccessible parts of Chinese Tartary, where its collection is attended by dangers sufficient to appal the stoutest heart.

"We are greatly indebted to the monkeys, then," said Ernest, "that they have made known to us the existence of so precious an article." My wife expressed a wish to have a few roots to plant in our garden.

The next morning, after we had finished our every-day occupations, we set about the manufacture of the bird-snares. I took some of the liquid India-rubber, which I mixed with the turpentine, and placed the mixture over the fire; and, while the glue was thickening, I sent the boys into the copse to gather a quantity of little twigs which I needed. They soon brought me a large supply, which I made them dip in the glue and fasten to the branches of the fig-trees. I taught them how to avoid the inconvenience of glueing their fingers, by plunging a packet of five or six twigs, by the aid of a pair of pincers, into the glue, instead of dipping them in singly. When I had made a sufficient quantity, Jack and Fritz climbed into the tree, and placed the branches of the fig-trees, covered with the snares, among the limbs of the tree; and it was not long before we saw the unfortunate ortolans falling to the ground in numbers, their legs and wings stuck fast in the glue. They fell so fast that Francis, Ernest, and my wife were scarcely sufficient to gather up the game and kill them, while Fritz and Jack again fixed in the branches the snares that had fallen with the birds, and which served three or four times.

I observed that the number of birds was considerably greater than the preceding year, and this abundance of game suggested another idea to my mind. I thought that, if the ortolans were so numerous during the day, they would not be less so at night; and I resolved to try, in imitation of the Americans in Virginia, the experiment of a hunt with torches, persuaded that it would be more expeditious and successful than taking the birds by snares. I arranged the materials for making my torches, in which turpentine was a powerful auxiliary. I enjoined my sons to take notice of the trees on which the ortolans roosted during the night; and after supper, and a few minutes of rest, I commenced my preparations. These were few in number. We took with us three long bamboo canes, two bags, torches of resin, and some sugar-canes. Arrived at the foot of the trees that we had chosen, I lighted up my torches; and scarcely had the flame begun to burn, than a cloud of ortolans fell down around us, and began to fly wildly round the flickering flames. I then armed each of my sons with a bamboo cane, and bade them strike right and left among the mass of ortolans. They fell as thick and fast as rain, and we soon filled two large bags. Our flambeaux, however, would only last long enough to light us back to Falcon's Nest. Placing the sacks crosswise on the bamboo poles, we carried them very easily, and arrived safely at the Nest. Before we retired to rest, we looked over our game, and terminated the sufferings of such poor birds as had not been killed by the blows.

In one of our excursions to the farm, we made a new conquest. Fritz had placed a little cup of rice, covered with gluc, on a palm tree, and two pigeons of Molucca had been taken by it—beautiful creatures: their plumage was an agreeable mixture of blue, green, yellow, purple, and violet. We carried them home with us, intending to admit them members of a new dove-cot to be established near Rockhouse. My wife was delighted with our acquisition. I chose that part of the rock next our grotto as a situation for our second dove-cot; and as the rock, after the outside layer was pierced, became softer, we soon made an excavation ten feet high, and large enough to contain twenty pairs of pigeons. Two perches ran through the whole length, and, projecting out in front, with a board nailed across, formed a



PISAN

"We were thus enabled to contemplate tranquilly the majesty of the
sp. stack before us"—P 209

platform, which we protected by a slight roof; a door, with a hole to admit light, closed the front; and a rope-ladder, suspended from one of the perches, enabled us to mount up and look after the inhabitants. It cost us several weeks of constant labour to finish the construction, cover the inside with a coat of plaster, and arrange the perches, the nests, &c.

The pigeons, it is said, are so fond of the odour of anise that they will return of their own accord every night to enjoy its perfume. We proceeded to make some oil of anise. Jack had brought us a plant; we broke the seeds on a stone, and if the oil was not as pure as that of the chemists, it was not less useful or less aromatic. I rubbed the door of the dove-cot, the perches, and every place where the pigeons could touch either feet or wings, with it. I then mixed a sort of dough with anise, salt, and clay, and, after having placed it in the middle of the dove-cot, we put in the pigeons, which we had kept in willow-baskets while their habitation was building. We shut them up, with provision for two days, and left them to enjoy at their leisure the odour of the anise. At the end of that time we ventured to peep through the two windows of isinglass, which I had placed in the door; and I saw with pleasure that, instead of being frightened at the new objects that surrounded them, our prisoners appeared to have become quite tame; and when I entered, they took no more notice of me than a domestic pigeon would have done. On the morning of the third day I announced to my family that the day of liberty for our prisoners had arrived, and now they were to be free. As soon as the door was opened, the pigeons poked their heads cautiously out of the hole, then advanced on the platform, and suddenly soared up to such a height that they were lost to our sight. But in a few moments they again flew down, and settled tranquilly upon the platform they had just quitted; and then took wing again, and disappeared in the direction of Falcon's Nest.

"Adieu, gentlemen!" cried Jack, as they darted away, "a pleasant trip to you;" while my wife and Francis commenced to deplore the loss of our two handsome pigeons.

We passed the rest of the day in the neighbourhood of the dove-cot, and often strained our eyes in the direction of Falcon's Nest, but nothing was seen. We renewed the next day

our habitual occupations, and though I felt a little doubtful about the return of the birds, I said nothing, but anxiously awaited the result of my experiment; when about noon, we saw Jack running towards us, clapping his hands, and screaming out, "He has returned! he has returned!" "Who? who?" was eagerly asked. "The blue pigeon!" he answered, "the blue pigeon! quick! come and see him!"

We ran to the dove-cot, and, besides the blue pigeon, we found with him, on one of the exterior perches of the house his mate, whom he was endeavouring to persuade to venture into the interior. He would put in his head, and then return to her, until at last he prevailed, and we had the satisfaction of seeing her enter the pigeon-house. My sons would have immediately closed the door, but I prevented them, saying "that some time or other it must be opened; and besides," I added, "how are the other pigeons to enter if we close the door?"

While we were thus speaking, Fritz suddenly interrupted us: his eagle eye had perceived the birds we were expecting. "There they are! there they are!" he cried; and really we soon saw the other pigeon and his mate alight down at our feet. The joy which greeted their return was so loudly expressed, that I was obliged to impose silence; for the noise would have frightened the pigeons so that all the anise in the world would not have retained them. We all kept still; and, ere long, the new comers entered their habitation.

Jack was wonderfully pleased that his plant of anise had been the charm which had attracted the pigeons of Molucca. He contrived to capture, in the course of a few days, three wood-pigeons by means of the snares we had employed against the ortolans. We rubbed the ends of their wings and their feet with ashes to clean them from the glue, and placed them with the others.

The native pigeons multiplied so fast and increased so abundantly, that I was obliged to reduce the number, as in time they would have driven out our beautiful Moluccas; and, as the great increase was augmented by swarms of emigrants from Falcon's Nest, I determined to reduce the number of European pigeons to six pairs; and, to prevent any newcomers, snares of glue were placed around the dove-cot every morning before it was opened, and they furnished us with many an excellent dish.

Of all our resources, the bees had prospered most; experience had taught me how to manage them, and the only trouble that I had was to provide new hives each year for the multiplying swarms. I had often heard of the hydromel of the Russians; we had the primary material, honey, from our hives, and I determined to make the experiment. We boiled some honey in a sufficient quantity of water, and after having filled two barrels with the fluid, I threw in a large cake of sour corn bread, to make the liquor ferment; when that process was finished, we tasted it, and found it was of a pleasant flavour, agreeably acid, and a great resource for our long winter days. We placed the two casks in our cellar. We then set to work and made a choicer drink than the first: to our honey and water we added nutmegs, ravsensara, and, in short, a collection of all the aromatic plants we could find. This beverage was reserved for extraordinary occasions, such as holiday banquets and anniversaries.

Our pigs were as wild as ever. The old sow had been dead some years; but she had bequeathed to her posterity a spirit of savage independence that all our exertions could not modify. Our other beasts had multiplied so rapidly that we could often kill one without any fear of impoverishing ourselves. The remembrance of the trouble we used to have in collecting our animals at the approach of the rainy season had led us to invent a method to render the service less difficult; it was to accustom them to return to their homes at the sound of a couch, in which I had placed a bit of wood, like a flute. The pigs alone we could not manage. They were unruly, and loved their liberty too much to be confined: we willingly abandoned them, as the dogs could easily bring them together when necessary.

The fabrication of sugar was an object of our special attention, and we gradually improved our manufacture; not that I can say we crystallized it as done in the refineries, but we obtained a very satisfactory result. We had saved from the wreck of the ship many articles intended for a sugar factory; among others, three metal cylinders with which to press the sugar cane, three great kettles to boil the liquid in, and ladles and skimmers in abundance. The press was fixed under a perpendicular screw, working in connexion with the cylinders, the whole turned by a lever passed horizontally

through the screw, and moved by one of our beasts of burden.

The sugar-cane is easily propagated: all that is necessary is to bury the canes in furrows, and from each knot buds a shoot, which becomes the germ of a new plant. It requires nine months to arrive at maturity. The canes should be cut as near the ground as possible, because the richest juice is found in the lower joints; and, after cutting them, it is considered well to cut the stumps down a few inches below the surface of the ground, and to cover them up with mould. The upper branches of the cane are used as food for cattle. The operation of cutting the canes is so adjusted as to keep pace with the action of the mill by which the juice is to be pressed out, so that the canes may be crushed or ground while quite fresh. The liquor which is pressed out is called sugar-honey. The first thing done with the sugar-honey is to boil it, which must be done immediately, for in twenty-four hours it becomes sour, and soon changes into vinegar. It is boiled an entire day, water being poured in from time to time; the foam is skimmed off very carefully, and to purgè the sugar more, wood-ashes and quick-lime are thrown in, the skimming being continued. The liquid is then passed through straining-cloths. The dregs, in some places, serve to feed the hogs; in other places they are mixed with water, and, being left to ferment, make wine. The liquor is then boiled over, and the violence of the boiling is appeased by throwing on the top some oil. The smallest quantity of acid will prevent the sugar from crystallizing and assuming a solid form. The warm liquor is then emptied into earthen moulds, shaped like deep cones, and open at both ends: the little hole at the point is stopped by either linen or straw.

The whole art of refining consists in depriving the liquid of a honey-like sap which prevents it from assuming the requisite whiteness, solidity, and brilliancy. This sap passes out through the little hole. It is most commonly known by the name of molasses. In the East Indies earthen pots or jars are used, wide at the top, but coming to a point at the bottom, which is perforated with a small hole, that, at the commencement of the operation, is stopped with the stem of a plantain-leaf. After it has been left for a few days to granulate, the holes in the pots are unstopped, and the molasses drains off into ves-

sels placed to receive it. The sugar is rendered still purer and whiter by covering it with the moist leaves of some succulent aquatic plant, the moisture from which drains slowly through the sugar, and carries with it the dark-coloured molasses. After several days, the leaves are removed, and the upper part of the sugar, which has been most purified, is taken away, and dried in the sun. A similar process is said to be practised in Cochin China, by making a pile of brown sugar and of slices of the cellular part of the plantain-stem, in alternate layers. The colouring matter of the sugar is thus absorbed by the plantain, leaving the sugar very pure and white. From sugar so prepared the fine white sugar-candy of that country is made. The brown sugar, purified by the whites of eggs, or the blood of cattle, forms the refined, or royal sugar, so named on account of the pure, glittering colour of the grain.

As we intended to turn the tea-plant discovered by Frick to account, I related to my sons all I knew concerning it.

In China and Japan this shrub is cultivated with the greatest care, especially that destined for the consumption of the imperial family; the fields in which it grows are divided into compartments, like a vast garden, intersected by canals of running water and straight walks, which are carefully swept every day. Such are the pains taken to ensure the excellence of the finest sorts that, for two or three weeks before the harvest commences, the collectors, who are trained to this business from a very early age, are prohibited from eating fish or other kinds of food reckoned unclean, lest by their breath they should contaminate the leaves. They are also made to take a bath two or three times a-day, and not allowed to gather the leaves with the naked fingers, but always with gloves. In China, and generally in India, the tea is prepared by the hands of women. About the month of May, the mothers of families, the children, and the female slaves, leave their homes and visit the tea-plants every hour of the day, so that they may gather the leaves before they are fully developed. At evening the leaves they have gathered are taken home and spread on plates of polished iron, heated to different degrees of temperature; they are stirred continually with the hand until they begin to curl, and are then spread on rush mats, fanned till cool, and then again submitted to the heated plates.

These operations are repeated four times, the women rolling the tea-leaves until they take the form which we see them under. The finest tea may, if the proper time for gathering it be neglected, be changed into an inferior tea in one night. It is necessary to roast the leaves the same evening that they are collected, for if kept till the following day they become black and lose much of their virtue. By the process of roasting, the leaves lose two-thirds of their weight; so that three pounds of fresh leaves dry into one pound of tea fit for preservation. It is by the process of roasting that the flavour is first developed; the leaves, when fresh, being as insipid as the bean of coffee before heat is applied. The exciting effects of fresh tea are such that it is rarely used till it has been kept twelve months; and, when indulged in, it produces great disturbance of the mind, almost resembling inebriation. This property is diminished by repeated roastings; but, as green tea is less exposed to heat than black, it retains more of this power. Besides, the green tea for exportation undergoes some process which changes its colour, giving it a blueish-green hue. The Chinese themselves do not consume those kinds of green tea which are prepared for exportation. The rich and luxurious Chinese keep the fine tea in jars made of the finest porcelain, some of which are thought to communicate an additional aroma to the tea, and all of which have very narrow mouths to retain the peculiar odour.

The taste of tea is more or less astringent, and, before it is infused, unpleasantly acrid. To make the infusion, the Chinese pour boiling water on a small portion of the leaves, but do not allow it to stand, but instantly pour it off again, by which they obtain only the more volatile and stimulating portion of its principles. The poorer Chinese, indeed, boil the very inferior and coarse leaves, which alone are within their reach, and drink the decoction repeatedly during the day. This is done not only to extract such virtues as the tea possesses, but to qualify the water, as little good drinking water is met with in China. Travellers find a supply of tea a very valuable accompaniment on long journeys, as it improves the most brackish waters.

The Chinese pretend that the flavour of the tea is greatly lessened by a sea voyage. In no country in Europe is tea in such perfection as in Russia, whither it is conveyed by land;

but this most likely arises from the Russians drawing their tea from districts of a finer soil. The distinguished Oriental scholar, Klaproth, gives a list of about forty genuine varieties of tea, with an explanation of the terms applied to them. Thus, Pak-ho, corrupted into Pekoe, means "a white down," being the first sprouts, or yet hairy leaf-buds of young plants, three years old, after their first flowering. It is by the Chinese applied to an expensive kind called Loong-tsing—literally, "tea of the wells of the dragon"—which is never brought to Europe, as it is so delicate and slightly fired as to spoil by the least damp.

The first tea-leaves were procured from the Chinese, in exchange for those of the *salvia officinalis*, or garden sage, a plant of which the school of Salerno thought so highly, that they left this verse: "Cur moriatur homo cui salvia crescet in horto?" But the Chinese, like others, soon found out its inferiority, and refused to part with their own precious leaf, except in exchange for solid coin.

These details vividly interested my young family, and it was determined that the following year we should have a regular gathering of the tea.

"Very well," said Jack; "and in the meantime we will put up with chocolate. I can supply an abundance of cacao-beans." "Chocolate!" his brothers chimed in. "Papa, we must have some chocolate!"

"Very well, gentlemen," said I, with less enthusiasm; "but before you make it, you ought to know something about it, and be able to tell how this bitter cacao-bean is transformed into delicious chocolate. Come, now, let me see which one of you can give any information concerning the origin and preparation of this luxury."

These words were followed by a moment's silence on the part of my sons, and then the doctor commenced.

"Cacao," said he, "or, as it is commonly called, cocoa, is the bruised seed of the *obroma cacao*. The seeds are oval, about as large as an olive, obtuse at each end, compressed, and covered with a violet or ash grey skin, which incloses two irregularly-cut and plaited cotyledons, of a fatty nature, and of a brownish-black or violet colour. The properties of these seeds are owing to the presence of a fixed concrete oil, and an agreeable aromatic principle. The wood of the cacao-

tree is porous and very light; the leaves succeed each other so rapidly, that the tree is never destitute of them; and it is also always covered with an immense quantity of flowers, resembling small roses. The cacao-bean is an object of considerable commercial importance; in the new continent, and on the coast of Caraccas, it is extensively cultivated. When the cacao is considered to be ripe, the gathering of it is intrusted to the most skilful negroes, who, with long, thin poles, knock down the ripest pods, taking care not to disengage those that are not matured, or are in flower. In a good season a gathering is made every fifteen days; otherwise, once a month. The pods are not allowed to remain in heaps more than four days; if they remain longer, they will germinate; they are, therefore, never gathered until just before they are wanted for use or shipment. The kernels of the cacao are deprived of their bark by the aid of fire; they are then moderately roasted, and pounded up in a heated mortar. Simply bruised, they constitute the cocoa of the shops; reduced to a paste, mixed with sugar, and flavoured with vanilla, they become chocolate."

"Oh, what a fine thing science is!" interrupted Jack. "I have drunk chocolate often, and never once thought of asking about its origin. As long as I could get a cupful, I did not care where it came from; and I humble myself before the science of Professor Ernest, and move, that he drink the first cup of chocolate from our factory at Rockhouse."

"Adopted!" was the unanimous cry, and I saw the doctor's fine eyes radiant with triumph.

CHAPTER XXXIX.

THE CASTAWAY RESCUED.

ON another occasion that Fritz had left us without notice, and had been absent for an unusually lengthy period, he at length appeared in his kajack, to our great satisfaction. On his landing, he entertained us with a long account of the adventures, of divers kinds, that had befallen him, as well on sea as on land. He had resolved to explore the eastern coast beyond the furthest point we had yet reached,

and, in pursuance of this object, had ascended some large rivers, and had encountered a variety of animals, some of which he had brought with him as evidence of his success in the chase.

After he had narrated to us these particulars of his expedition, he drew me aside, and said that he had something special for my ear, but which was of great interest to us all



It seems that he found fastened to the foot of a bird that he had knocked down a piece of linen, on which these words were written in English, "Rescue a stranger on the smoking rock." He suspected, from the freshness of the writing and various other circumstances, that the writer of the missive was not far distant, and considered that it was consequently our duty to aid the stranger. As regarded himself, he was resolved to set about the search immediately, and not to desist from it till he felt assured that further effort would be

- hopeless. He had already examined the whole of the country adjoining, but had not thought it advisable to prolong his absence, for fear of rendering us uneasy.

"An idea occurred to me," said Fritz, "to attach the linen again to the foot of the albatross, and to write upon a second piece, which I fastened to the other foot, the following sentence in English: 'I have confidence in God—succour is near.' If the bird returns to the place from whence it came, thought I, the person can read the answer; at all events, there will be no harm in trying this experiment. The albatross had been stunned, and I poured some hydromel down its throat to reanimate it. I attached my note to its foot, and let it go, earnestly praying that its mission might be successful. The bird flew up, hesitated for a moment, and then darted rapidly away in an easterly direction, which decided me to take that route in my search. And now, father," continued Fritz with emotion, "what do you think of this event? If we could find a new friend, a new brother—for certainly we will go in search of the stranger, oh, yes, we will go—what joy! what happiness!"

I agreed to join him in the search, and started with the rest of the family accordingly. We took nearly the same direction he had already followed, so as to examine still more minutely the spots where it was probable a stranger thrown on these shores would seek refuge. We kept secret for the present our real object in this expedition, and the occupation we were engaged in was sufficiently exciting of itself to usurp all our attention. Fritz had his kajack with him, and acted as pilot through the rocks and shoals that girded the coast, thus securing the safety of the larger vessel; he also ascended the creeks and estuaries we met with on the way, occasionally accompanied by one of his brothers, the little canoe having been furnished with two seats, in case the unlucky mariner should be fallen in with, who, like ourselves, had been cast away upon these unknown, though by no means inhospitable, shores.

On one occasion, whilst perambulating the coast with his brother Ernest, he encountered a jaguar or tiger, from which he had a narrow escape. It was killed, but Fritz at the same time had to regret the loss of his eagle, for the noble bird, in order to save its master, had pounced down upon the head

of the animal, and, though it probably thereby saved his life, perished itself in the struggle with the savage animal. Many other incidents of a like nature, some of them not unattended with danger, occurred during the expedition, and which served to give variety to our search, besides furnishing material for conversation, and increasing our experience of the unknown regions we were traversing.

One day, towards sunset, darkness rapidly set in and increased, till we thought night had fairly closed over us. It had been raining, but the rain having ceased, I was striking a light with a view to suspend a lantern to the mast, when Ernest, who was on deck, called out, "Look here, father! brothers! the sea is in flames!" and, truly, as far as the eye extended, the water seemed to be on fire; a light of the most brilliant fiery red almost touched the boat. We seemed to be floating in a blazing furnace. It was a sight at once magnificent and alarming. Jack seriously asked whether or not there was a volcano in the depths of the ocean; and he was very much surprised when I told him that the innocent cause of all this intense display of light was a kind of marine animal that so much resembled a plant in form as to have been considered so by early navigators; modern naturalists, however, have detected their true nature, and shown them to be organized beings, possessing all the attributes peculiar to the animal creation. When touched, they evince the sensation of feeling; they search for food, and, when found, they devour it with astonishing rapacity; they are of various colours, and are known under the general term of zoophytes. They occupied the sea for a considerable space around us, and their natural radiance had an increased effect in the total darkness with which we were enveloped. These animals change colour, from orange to blue, and from green to yellow; when touched, their luminosity is for a time increased. The boys caught a few of the glittering creatures, with which they amused themselves for some time.

We tracked along the coast, watching it closely with anxious eyes; but we could detect no island likely to be that referred to by the stranger, and I persuaded Fritz to abandon the search, as we had no clue to the distance that the albatross had flown, nor the difficulties that might be in the way of our bringing our efforts to a successful termination. Fritz appeared

to acquiesce in this view of the case; and, accordingly, I set about making preparations for returning home on the following day. When, however, I went on deck next morning, I found a short note in Fritz's hand-writing, informing me that he could not yet think of giving up the search, and begging me to lie in wait for him here, till he had made a further investigation of the coast.

When he had been absent for some time, his mother began to grow anxious about him, and, consequently, I thought it necessary to acquaint her with the secret purpose of his absence, feeling confident that I might place the utmost reliance upon her judgment and good sense. My excellent partner, though she received this intimation with great calmness, seemed greatly interested with it. Lingerer hopes, that had long lain in abeyance, were suddenly awakened in her mind; and, somewhat to my surprise, she not only wished heartily that Fritz might succeed, but went so far as to anticipate with confidence a fortunate result.

Eventually, Fritz and his kajack re-appeared where he had left us; when he returned, however, he was still alone. As a matter of course, he was beset with questions as to where he had been, and what adventures he had met with on the way. His answers to these inquiries were of a very unsatisfactory colour to his auditors, and, to say the least of them, were of the vaguest character; but, when an opportunity offered, he drew me aside, and in a tone of the utmost joy, said, "Father, I have succeeded; I have found the castaway." These words surprised me not a little, but I was still more astonished when he informed me that the stranger was not a sailor but a woman, and for this reason he had left her a little way off, so that we might prepare ourselves to receive in proper form a visitor so extraordinary. He said that she wore the dress of a midshipman, and she had expressed a wish that her sex might not be made known as yet to my brothers, as she felt some uneasiness at a reunion with so many strangers, after a sojourn of three years in solitary loneliness.

Whilst I was communicating this news to my wife, and making her aware that she had to prepare for the reception of a companion and friend of her own sex, Fritz had gone below, and in changing his dress had paid a degree of attention to his personal appearance that was altogether unusual

in our family circle. He lost no time in entering his kajack, and, having requested me to follow in the pinnace, he whispered a few words into my ear, wishing me on no account to inform his brothers of his discovery, being desirous of witnessing their surprise when the stranger was introduced to them on our return.

Fritz leaped merrily into his light craft, and was soon



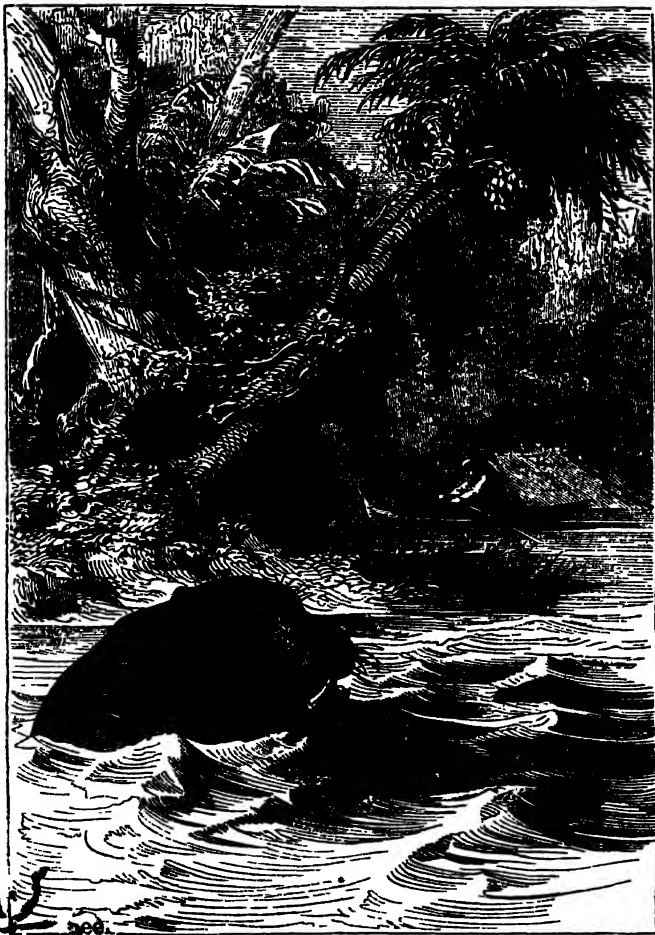
skimming through the rocks and shoals, which rendered this coast very perilous to the navigator. An hour's sail, aided by a favourable breeze, brought us to a little island completely clothed with foliage. Here our pilot turned towards the shore, and I guided the pinnace in the like direction, taking soundings as I went along, the number of reefs demanding this precaution. I found a place near the shore where the water was sufficiently deep to admit of safe anchorage

close to the land. Having secured the vessel, we all disembarked, and followed the course we had seen Fritz take. I detected a trodden pathway, leading towards a clump of trees, and soon after descried a hut, embowered in plantain-leaves, with a fire burning in front, from which arose a slender column of smoke. As we approached this unwonted sight, the boys evinced unmistakable symptoms of astonishment, which were greatly increased when Fritz came out of the hut, accompanied by a young and handsome sailor, whose modest bearing, slight figure, and graceful form somewhat belied the masculine attire.

It was now fourteen years since we had beheld a human form other than those that formed our own little community. The sight of the stranger had the singular effect of completely silencing us; it seemed as if solitude had deprived us of the commonest attribute of social intercourse, and that we had lost the power of language. Fritz relieved us from this embarrassment by introducing the stranger to my wife as "Edward Montrose," suggesting that in him we would all have a brother, a son, or a friend, and that our little community had gained another member, and these solitudes another inhabitant.

As soon as I had recovered the power of speech, I took our newly-discovered friend by the hand, and, in the kindest accents I could call to my aid, informed her of the great delight we all felt in bidding her welcome to our family circle. With my wife, however, she had almost forgotten her assumed character, for, after the first shyness wore off, she threw herself into her arms and burst into tears. The boys all testified their hearty gratification at the discovery, and warmly hailed this unexpected addition to our number.

When I had time to reflect on the incidents of this first meeting with the stranger, I noticed that our long solitude had materially affected our manners, and that our new-found friend was frightened at the uncouth though kindly reception given her by my sons; nor could it well be otherwise, seeing the rude toil and often dangerous pursuits we had been engaged in for so many years. The case, however, was different as regards Fritz; some of the asperities common to us all had already been worn off as regards his intercourse with our



“He then perceived a tapir, who, frightened by the report of the gun, was endeavouring to gain the opposite bank.”—P. 258.

guest, and he even forgot himself so far as to call his adopted brother by the name of Jenny.

After this it would have been difficult to keep the secret; and when it was fully disclosed, the awkward intermissions between the blushing and smiling may be readily conceived, and the efforts of the boys to do homage to the sex of the stranger contrasted oddly with the rough mode in which they had so recently expressed their joy. It was now concluded that we should all return together; and on embarking in the pinnace, Jenny was consigned to the cabin under the care of my wife, whilst we remained on deck to hear Fritz relate the particulars of the expedition which he had brought to so happy a conclusion. The interest of the boys in the narration seemed intense, and they could not sufficiently express their delight at the advent of a new sister. The aspect of matters assumed another appearance when the fair subject of our remarks herself reappeared on deck; there was a repetition of the awkwardness that had already intimidated the stranger, accompanied by a degree of timidity and reserve by no means calculated to reassure their new sister. With Fritz, however, she was entirely at her ease, and welcomed his approach by holding out both her hands in so cordial a manner that we could not help being pleased to see one of our number so highly appreciated.

The boys had listened with great interest to the account which Fritz gave of the various incidents that led to his discovery of the stranger. It appears that, after he left us, he had coasted along for three entire days, plying his oars unceasingly till almost worn out with disappointment and fatigue; on the fourth day, however, his hopes were awakened by observing a thin column of smoke arising from amongst the trees that covered a small island adjoining the coast. Nor were his anticipations this time in vain; for here he found the object of his search, and she, as if waiting for his arrival, received him with the utmost frankness and cordiality. They had, however, some difficulty at first in expressing their mutual satisfaction. The young stranger was a native of England; and though Fritz was not altogether unacquainted with the language, it was some time before the unaccustomed sounds became familiar to his ear. This difficulty did not in any way interfere with their mutual satisfaction, and they

soon became perfectly at their ease. She led the way to her hut, where an excellent supper was prepared, after which Fritz returned to the kajack; the stranger ascending a tree, where she usually slept, so as to be out of the way of danger



during the dark hours of the night. Next morning, when Fritz arrived at the hut, he found a savoury breakfast, consisting chiefly of broiled fish, awaiting him. The women told her as much of his history as was needful. He spoke of his father, mother, and brothers; of their pleasant grotto at Rockhouse, and of their summer retreat of Falcon's Nest, and

invited her to share with us such comforts as our more extended means enabled us to offer her, assuring her of a cordial reception from us all, and which she frankly and thankfully accepted.

It was arranged that on our return home next day, Fritz should relate to us what he knew of the stranger's history; and, with the heroine herself seated in the midst of us, we listened to the recital of her adventures with wakeful interest. Jenny Montrose was the daughter of a British officer, who had served in India, where she herself was born. At the age of three years she had lost her mother. Under her father's eye, she had been instructed in all the accomplishments suited to her sex; and she was likewise trained in such masculine exercises as were calculated to strengthen her frame and fit her to reside with her father, who held an office in the colony, the duties of which required his personal superintendence. At the age of seventeen she could manage a horse with some degree of skill, and was an adept in most of the field sports peculiar to the east. Colonel Montrose now received orders to return home with his regiment; and, as the rules of discipline did not admit of her accompanying him in the ship with the troops on board, she was entrusted to the care of the captain of another ship which was to sail about the same time. He adopted the precaution of supplying her with resources, and arranged that she should assume the character of a sailor throughout the voyage home.

The necessity of separation was painful to both the old soldier and his daughter; but there was no alternative, and the trial had to be undergone. Both at length embarked, and the vessels set sail. At the outset of the voyage, the ship which conveyed the daughter was accompanied with a favourable breeze, and, for a time, some hopes were entertained of a rapid and prosperous passage; this state of things, however, came to an end. A violent storm broke over the doomed vessel; it was driven for days out of its course, and became, finally, a total wreck on these shores. A place had been secured for Jenny in one of the most trustworthy boats, but this also succumbed to the violence of the storm, and she was borne, almost inanimate, to the place where we found her. Fortunately, she had been thrown high upon the beach, and

was able to scramble out of reach of the waves. Whether any of her companions in misfortune had escaped she could not tell, as she had seen no trace of a human being till Fritz had appeared to rescue her from solitude.

On recovering the use of her faculties, she obtained some bird's eggs and shell-fish, which strengthened her a little; and, finding that she was enclosed in the circumscribed limits of an island, without any trace of her companions, she felt that there existed within reach the means of sustenance; and resolutely set about such preparations as were calculated to mitigate the exigencies of her position. By good chance, she had in her pocket a flint and a knife; these enabled her to kindle a fire, which she ever afterwards kept burning. The difficulties she met with at first were such that only a sentiment of self-preservation could have enabled her to overcome; still she never for a moment abandoned hope, but always retained a full reliance in the mercies of Divine Providence. She was greatly indebted to the hardy exercises to which she had been habituated in her youth. They enabled her to surmount obstacles with ease that would have appalled the generality of her own sex. She erected a hut, formed lances, arrows, and snares out of such materials as the island supplied; and, luckily, was fortunate enough to capture a cormorant alive, which she tamed, and it not only served as a companion to her in her solitude, but helped her to obtain provisions during the rainy season, when she could not very well have done without some such aid. For a long time she entertained the hope that some of the crew of the ill-fated ship had escaped and were located on the coast; and, with a view of attracting their attention, she kept her fire constantly alight, by feeding it with a kind of palm-leaf, which emits a thick, dark smoke, and possesses a somewhat fragrant odour. Sometimes she caught birds in her snares, and, with a like view, attached missives to them; by which means she had been fortunate enough to lead Fritz into the search, and had terminated so happily.

Whilst Fritz was entertaining us with these details, which were blushing listened to by Jenny herself, we came in sight of Safety Bay. Fritz and Ernest then started for Rock-house in the kajack, so as to have a fitting reception prepared for our guest by the time we landed. On reaching the beach,

the two boys welcomed us with shouts of joy; and Fritz, gallantly presenting his hand to Jenny, led her by a shady path through our young plantations to the verandah of the grotto. Here a table was abundantly spread with all our choicest delicacies. Some of my wife's excellent preserves, different kinds of fruit, were added to the more substantial dishes, warm and newly cooked; whilst our plate, ostrich-egg cups, and the other showy dishes of our own manufacture, garnished the board, and which, considering the locality, were not out of place; for we wished to show the stranger that, though the coast was desolate enough, still there were resources to render life cheerful, if not entirely happy. As for Jenny, she viewed everything with delight; and, after the privations which she had undergone, and the comparatively limited amount of her own comforts in her island home, she seemed to regard the hospitable display at the grotto of Rockhouse as more magnificent than all the costly paraphernalia of oriental splendour she had ever beheld.

Since our arrival on the coast, no such day of rejoicing had ever fallen to our lot. My wife and I sat down to the table which was spread under the pleasant shelter of the verandah; Jenny sat between us, and a repast was made, that for variety and wholesomeness might have vied with the richest feast in Europe. The health and welcome of our adopted daughter were pledged in wine of my wife's manufacture, and drank with the utmost enthusiasm by all the boys. We then proceeded to show her the dwelling she was now about to inhabit—the hall, the museum, and the stables were successively exhibited, with all of which she expressed herself highly pleased. The kitchen, however, seemed to afford her most satisfaction, much to the delight of my wife, whose particular province this was. She had indeed learned, during her own trials, to appreciate highly those minor appliances in the comforts of life which concern more immediately the habits of a young sex. The workshop, the dove-cot, and the garden having been inspected, she was shown to an apartment reserved for her own use. Next day we started for Falcon's Nest, and before the rainy season had fairly set in, Jenny was as thoroughly familiar with all our domains as we ourselves were. My wife found in her an agreeable and highly intelligent companion, besides which, she rendered invaluable

assistance in those labours which before had fallen entirely upon herself. Nor were these services reluctantly given; had she been her own daughter, she could not have more cheerfully and more lovingly performed the offices she had voluntarily undertaken. The boys were delighted to please her, and her presence and influence wrought great changes in their character and habits. The boisterous roughness that had been growing upon them received a check, and the gentleness and courtesy that had formerly distinguished them was gradually resuming its sway. During the rainy season this change was strongly marked; even Ernest set aside his books to listen to Jenny's conversation, and assist her in such projects as her innate intelligence suggested for augmenting the amenities of our position, and contributing to the general welfare.

On returning from one of their excursions to Jenny's island, which we had named "Good Rencontre," my sons gave their mother some coffee-beans which they had gathered there, and, though they abounded in this spot, Jenny had never made any use of them, being without the means of roasting, grinding, and preparing the green berry. "Do you think," said my wife anxiously, "that the plant would grow in our island?" I then recollected, for the first time, how fond she was of coffee, which in Europe had always been her favourite beverage. There had been some bags on board the ship, but I had never thought of bringing them away, and my unselfish partner, not having seen them, never expressed her regret at the want of her wonted luxury, except on one occasion wishing that we had some to plant in the garden. Now that there was a prospect of obtaining a supply, she confessed that coffee and bread were the only delicacies she had ever regretted. I promised to try and cultivate the plant; but, foreseeing that the produce would not be of the finest description, I told her she must not expect Mocha. Her long privation, however, from this fragrant juice had made her less fastidious, and she assured me that, whatever the quality, coffee would be a great treat to her.

The boys were not less pleased with another discovery—that of the bread-fruit tree, of which they had observed several laden with the edible vegetable. The *artocarpæ* (or bread-fruit tribe) are all found in the warmer zones—many



"It also enabled us to get rid of the monkeys that were every now and then making an inroad to Falcon's Nest."—P. 278.

species in the tropics only. Their milk, which is always acrid, renders some of them intensely poisonous—as the upas tree of Java, and certain kinds of Indian fig; nevertheless, if the milk is naturally absent from any particular part of an *artocarpeous* plant, that part becomes eatable and even wholesome. Thus the fruit of the common fig, up to a short period before maturity, remains milky, and at that time would prove exceedingly pernicious; but, when ripe, the milk disappears, or is replaced by sugar, and the fruit becomes highly nutritive. The bread-fruit, which is subject to like phenomena, forms a staple article of food amongst the races that people the islands of the South Sea.

Though this remarkable vegetable is very abundant in the South Sea Islands, and in many parts of the Indian Archipelago, it only attains perfection in localities that are both hot and damp. The fruit is green in colour, and of considerable size, equalling in magnitude a melon of the larger kind, but assumes a variety of forms. The nuts, in flavour and taste, resemble the best chesnuts, but it is principally for their fleshy receptacle that the fruit is prized. When roasted, it becomes soft, tender, and white, not unlike the crumb of a loaf, but must be eaten new, for, when stale, it becomes hard and choky. If in good condition, and properly prepared, the flavour closely resembles that of a fine roasted potato. It is stated in Anson's voyages to be delicious when mixed with lime or lemon-juice, in which case it is said to have a grateful, tart flavour, and to acquire a taste like that of apple-sauce.

Having secured a quantity of the bread-fruit, the boys continued their voyage, and entered an extensive gulf, that narrowed towards the land, or having an aspect as if the mouth of a river. There they encountered vast herds of an amphibious animal known as the sea-lion, the sea-dog, or sea-elephant, and designated by modern voyagers the trunked phoca. This huge brute, which, when compared with the ordinary seal of three or four feet long, is like an elephant compared to a sheep, owes its name to its size, bulk, and still more to a proboscis or trunk with which the male is furnished. The salted tongues of the sea-elephant are considered savoury and wholesome, but the flesh is black, oily, and indigestible. The skin is much used for carriage and horse-harness, on account of its

thickness and strength. But the oil is the great object for which the animal is hunted. The quantity obtained from a single individual sometimes amounts to as much as 1,400 or 1,500 pounds. These animals, though of an enormous bulk, are gentle and peaceful, rarely offering to attack unless roused to passion by the cruelty of man. They were collected here in such numbers, that they might easily have prevented the entrance of the pinnacle had such been intended. They almost covered the rocks and the beach, opening their large mouths, armed with a formidable chasma of very sharp teeth, more frightful, however, than dangerous. Most of them were sound asleep, but they produced a most deafening noise by their breathing. On this occasion, the boys quietly left them to enjoy, for the present, in tranquillity their noisy slumbers.

All Jenny's treasures were removed to Rockhouse. They really were very curious, consisting of odd-looking skin garments, sundry ornaments, domestic utensils, and all sorts of articles which she had made in her exile. There were fish-lines, wrought out of the hair of the young girl's head, attached to which were fish-hooks of mother-of-pearl; some needles, made from fish-bones; piercers and bodkins, made of the beaks of birds; the skin of a young walrus, sewed together, served for a bottle; a lamp made of a shell, with a wick of cotton drawn from her handkerchief; a turtle-shell, used to cook food in, by throwing in hot stones; some fish-bladders; shells of all sizes, serving for glasses, spoons, dishes, &c. For wearing apparel, she had a hat made of the downy breast of the cormorant, which was stretched over some feathers from the same bird, forming a complete shelter for the head and neck against the rays of the sun; a little waist-coat, with sleeves, made from the skin of the sea-calf, the fore-legs serving as sleeves; some other garments, made of bird-skin or walrus-skin; belts, stockings, and shoes, all of a like primitive description.

My wife now having a companion and friend of her own sex, did not evince the same amount of anxiety as formerly at the absence of my sons, who were now, therefore, at liberty to undertake more lengthened excursions, and roam to their hearts' desire. They were contemplating an expedition to the Bay of Pearls, but which they were compelled

to abandon by marked indications of the approaching rainy season.

By degrees the horizon became covered with thick clouds, the winds swept fearfully along the coast, the billows rose, and for the space of fifteen days we were witnesses of a scene whose majesty and terrific grandeur can hardly be imagined. Nature seemed overturned, the trees bent to the terrible blasts, the lightning and the thunder were mingled with the wind and the storm; in one word, it was a concert of nature's many voices, where the deep tones of the thunder served for bass, and harmoniously blended with the sharp whistlings of the storm. It formed one of those enchanting spectacles to which we had from infancy been accustomed. As in the Swiss mountains we are liable to frightful storms, to which it is necessary to familiarize one's self, as one cannot avoid them, I had accustomed my wife and children, by my own example, to behold, not only without fear, but even with admiration, these giant struggles of the elements, these convulsions of nature.

However, the winds began to calm at last, and the rain, instead of beating down upon us in torrents, began to fall with that despair-inspiring uniformity which we felt would last for twelve long weeks.

The winter glided insensibly away. Reading, the study of languages, and other literary pursuits, were mingled with our domestic avocations, and helped to render the gloomy days more pleasant and agreeable. Ernest reigned chief of literature amongst us. Grammars and dictionaries of different nations generally form the chief stock of ship-libraries, and they prevailed in ours. Fritz and Ernest perfected themselves in English under our fair instructress, while Ernest at the same time continued Latin, which his passion for natural history rendered almost necessary to him. Jack began to pay some attention to Spanish and Italian, the pomp and melody of these two languages according with his character. As for myself, I laboured hard to master the Malay tongue, for I felt convinced that we were in the neighbourhood of these people.

Our emancipation was approaching; the wind calmed, the sea resumed its wonted placidity, the grass sprang up under our feet. The earth was as yet too wet to permit of our

resuming our excursions, and we spent a few days in arranging our shells and coral on tablets in our museum. This occupation suited Ernest, who, at heart, was really proud of the title we had given him of librarian and first director of the Rockhouse Museum. He had studied very hard during our seclusion, and he explained to us the formation of coral—how it developed amid the waves, and, gradually rising, constitutes large islands. He descanted on the polypi, and neglected no occasion to play the professor; yet, I must say, we listened with the greatest pleasure to his lectures. The study of natural history was one of our greatest delights; we possessed in our library several fine works, some enriched with engravings, which could guide us in the different branches of this interesting science, and nature each day spread before us a rich treasury of material for investigation and experiment.

CHAPTER XL

THE PEARL FISHERY—OTAHEITAN COOKERY—THE CACHALOT.

THE pearls were too absorbing a subject to be forgotten, and my sons entreated me to start without further delay on another expedition to the recently-discovered deposit. "Softly," said I; "before riding, you must saddle your horse: and, if you wish your enterprise to succeed, you must take with you the implements necessary to secure success. Let each one of you try to invent something adapted for the purpose, and then we will set out." •

This proposition met with the general approval, and was hailed by joyous acclamations. Each member of the party set his ingenuity to work. I forged for myself two large iron rakes and two small hooks of the same metal. I fixed wooden handles to the rakes, with iron rings attached, so that I could fasten them to the boat and drag them over the banks of oysters; with the hooks I intended to detach the oysters, which the rakes were insufficient to separate. Ernest made a sort of butterfly-net with scissors attached, with a view to secure some birds' nests. Fritz constructed a kind of ladder, by piercing a long bamboo at regular distances, and fixing in sticks crosswise. To the top he fixed a hook of

iron, and a spike at the bottom, so that it should rest firmly in the rocks. Jack made several very strong nets to hold our oysters.

We next prepared our provisions for the voyage, which comprised a couple of hams ready cooked, cassava-cakes, barley-bread, rice, nuts, almonds, and other dry fruits; and



for drink we took a barrel of water, and one of hydromel. A fresh and favourable breeze invited us to embark immediately. Francis and his mother and Jenny were left to guard the shore, and we gaily put off, accompanied by prayers and wishes for our safe and speedy return. Jack occupied the second seat in Fritz's kajack, Ernest and I forming the crew of the canoe.

The sea was as calm and brilliant as a mirror, and was

covered with the little boats of the nautilus, a sort of shell-fish which much resembles a miniature gondola, and from which it is supposed mankind first derived the elements of navigation.

When the nautilus floats, it elevates its arms, and extends, like a sail, the thin light membrane between them; it also puts out two other members which serve as oars, and a fifth as rudder. At the approach of an enemy, it lowers its arms, draws in its oars, fills its shell with water, and down it sinks in perfect safety; when arrived at the bottom, it turns over and empties out the water; and when it wishes to re-ascend, it inflates some air bladders with which it is provided, and rises to the surface. The shell of the nautilus is of a delicate white, and as thin as paper; the animal is a polypus of eight feet, and has a fringe-like substance covering the mouth, which serves as a means of seizing its food and conveying it to its mouth.

My young friends could not behold these beautiful little boats dancing over the surface of the waves without wishing to capture some. They threw out a net, and we soon had half a dozen beautiful specimens, which we carefully preserved for our museum.

• We soon attained the promontory behind which the Bay of Pearls extended. The noise of our oars frightened the peaceable salarganes, and they flew about in such numbers as almost to render it impossible to guide the boat; but when our eyes became habituated to the darkness, we saw with pleasure that every niche and corner was filled with their nests. • The trial which we had made convinced us that they were a delicate and wholesome food; besides, we knew how highly they are valued in China, and we were so possessed with the idea that some day or other a vessel would arrive on our shores, with which we could trade, that I resolved to gather a considerable number of these nests, only taking care to leave those which contained eggs or young ones. The large sack we had brought was soon filled, which gave much pleasure, as the boys were fatigued with their exertions. I then gave the signal for departure, and we continued our voyage to the bay. But the day was now too far advanced to commence our fishing; so, having appeased our hunger with some slices of ham and some cassava cakes, we lighted

up fires along the coast to keep off wild beasts, and went on board the canoe, where we soon sank to rest.

At daylight we were awoke by the report of a gun, which we afterwards learned had proceeded from the musket of Fritz, who had succeeded in adding another sea-otter to our game-bag.

The sea-otter is one of the most inoffensive animals of the whole species of amphibi. It possesses many good qualities, especially a love for its offspring, which surpasses belief, and it will die of starvation if its little ones are taken away. If attacked, it makes no resistance, but seeks to escape by flight; if that is impossible, it will lie down, and cover its face with its fore paws, as if waiting the mortal blow. The otter is a very desirable prey; besides the skin, which forms an excellent fur, its flesh is also much esteemed, and somewhat resembles mutton in flavour.

While Ernest was giving us this information, there emerged from a neighbouring little wood a troop of pigs of quite respectable size and strength. They trotted one after the other with a precision and regularity that would have done honour to a troop on parade. Jack took aim, and one of the animals fell. This did not seem, however, to make any impression on the rest of the troop, who trotted on as before. It was a singular spectacle to see the whole family marching along with an imperturbable tranquillity; every one followed exactly in his place, without any pushing for precedence; and, on examining them more closely, we found that there was but one footstep in the sand, so regularly did they march.

Jack thought that they were the Otaheitan pigs, of which Captain Cook speaks. Ernest was of another opinion, and maintained that they were peccaries. Jack, however, proposed to regale us with an Otaheitan roast for dinner. We received his proposition, but it was put off till the morrow.

After a frugal breakfast, we commenced our labours in the pearl fishery, and, with the aid of the rakes, hooks, nets, and poles, soon collected a large quantity of the precious oyster. Delighted with our success, which had surpassed our utmost expectations, and anxious to reach home before dark, we set sail for Whale Island, where we intended to land our cargo.

"We have quite a treasure there," said Ernest to his brothers. "Europe pays a princely price for them. They

are more precious than gold, especially as regards the fine pearls from the Levant. Cleopatra is said to have dissolved a pearl of the value of £52,000 in some strong vinegar, which costly draught she drank at a banquet in honour of Antony. The fisheries which are carried on to supply the market of the world with pearls are numerous, and some of them are of very ancient date. Thus, the fishery at Catifa, in Arabia, which produced the pearl bought by Tavernier for £110,000, was known in Pliny's time. The second Philip's celebrated pearl, which was valued at 150,000 dollars, came from St. Margarita, or Pearl Island. In 1804, the English Government sold the right of fishing on a bank of pearl oysters on the coast of Ceylon for three millions of francs, or about £120,000.

Ernest having, since our first voyage, consulted various authorities regarding the natural history of the pearl, gave us the following additional details.

The pearls are found in the shells of *meleagrina*, and principally in those of the species named *avicula*, or *meleagrina margaritifera*. The oysters are supposed to attain their complete state of maturity in seven years.

The pearl fishing commences in the month of February and ends about the beginning of April. It gives occupation to a great number of persons. The Orientals endeavour to throw a veil of mystery around it, and they go through a variety of ceremonies before undertaking it, which they think will render their success secure. They set off in the night, as they think it essential to be at the pearl-bank before sunrise. About seven o'clock, when the water is warm enough to permit the divers to plunge in, the fishing commences. In this they continue busily occupied till the sea-breeze, which arises about noon, warns them to return to the bay. As soon as they appear within sight, a gun is fired, to inform the anxious owners of their return. When the boats come to land, their cargoes are immediately taken out, as it is necessary to have them completely unloaded before night. Whatever may have been the success of their boats, the owners seldom wear the looks of disappointment; for, although they may have been unsuccessful one day, they look with the most complete assurance of better fortune to the next; as the Brahmins and conjurers, whom they implicitly trust, in defiance of all experience, understand too well the liberality

of man in hopes of good fortune not to promise them all they can desire.

Each of the boats carries twenty men, with a tindal, or chief boatman, who acts as pilot. Ten of the men row, and assist the divers in re-ascending; the other ten are divers. They go down into the sea by five at a time—when the first five come up, the other five go down; and by this method of alternately diving, they give each other time to recruit themselves for a fresh plunge. In order to accelerate the descent of the divers, large stones are employed; five of these are brought in each boat for the purpose. They are of a pyramidal shape, round at top and bottom, with a hole perforated through the smaller end sufficient to admit a rope. Some of the divers use a stone shaped like a half moon, which they fasten round the belly when they mean to descend, and thus keep their feet free.

These people are accustomed to dive from their very infancy, and fearlessly descend to the bottom, in from four to ten fathoms water, in search of the oysters. The diver, when he is about to plunge, seizes the rope, to which one of the stones is attached, with the toes of his right foot, while he takes hold of a bag of net-work with those of his left—it being customary among all the Indians to use their toes, in working or holding, as well as their fingers; and such is the power of habit, that they can pick up even the smallest thing from the ground with their toes almost as nimbly as a European could with his fingers. The diver, thus prepared, seizes another rope with his right hand, and holding his nostrils shut with the left, plunges into the water, and, by the assistance of the stone, speedily reaches the bottom. He then hangs the net round his neck, and, with much dexterity and all possible despatch, collects as many oysters as he can while he is able to remain under water, which is usually about two minutes. He then resumes his former position, makes a signal to those above by pulling the rope in his right hand, and is immediately, by this means, drawn up and brought into the boat, leaving the stone to be pulled up afterwards by the rope attached to it. Divers will often make from forty to fifty plunges in one day, and at each plunge bring up about a hundred oysters. Some rub their bodies over with oil, and stuff their ears and noses to prevent the water from entering, while others use no precautions whatever.

The divers are paid differently, according to their private agreement with the boat owners, either in money or with a proportion of the oysters caught, which they take the chance of opening on their own account. The latter is the method most commonly adopted.

The chief horror and danger awaiting the diver are concentrated in the ground-shark. This animal is a common and fearful inhabitant of all the seas in these latitudes; and its terrors are so continually before the eyes of the divers, that they seek a vague safety in supernatural means. Before they begin diving, the priests or conjurors, who are known in the Malabar language by the name of pillal karras, or binders of sharks, are always consulted, and whatever the conjuror says to them is received with the most implicit confidence. The preparation which he enjoins them consists of certain ceremonies, according to the caste and sect to which they belong, and on the exact performance of these they lay the greatest stress; nor will they on any account descend till the conjuror has performed his ceremonies. His advices are religiously observed, and generally have a tendency to preserve the health of the devotee. The diver is usually enjoined to abstain from eating before he goes to plunge, and to bathe himself in fresh water immediately after his return from the labours of the day. During the time of the fishery, the conjurors stand on the shore till the boats return in the afternoon, muttering prayers, distorting their bodies into various strange attitudes, and performing ceremonies. All this time they ought to abstain from food or drink; but they sometimes regale themselves with toddy till they are no longer able to stand at their devotions.

Some of the conjurors frequently go in the boats with the divers, who are greatly delighted at the idea of having their protectors along with them, and become additionally venturesome. The zeal of the conjurors who go in the boats appears to be stimulated by the hope of a valuable pearl. As a body, these keepers of the consciences of the sharks reap a rich harvest; for, besides being paid by the government, they get money and presents of all sorts from the black merchants, and those successful in fishing up the oysters.

The address of these fellows in redeeming their credit when any untoward accident happens to falsify their predictions,

deserves to be noticed. A diver at the fishery one year lost his leg, upon which the head conjuror was called to account for the disaster. His answer gives the most striking picture of the knowledge and capacity of the people he had to deal with. He gravely told them that an old witch who owed him a grudge had just come from Colang, on the Malabar coast, and effected a counter conjuration, which for a time rendered his spells fruitless; that this had come to his knowledge too late to prevent the accident which had happened; but that he would now show his own superiority over his antagonist by enchanting the sharks, and binding up their mouths, so that no more accidents should happen during the season. Fortunately for the conjuror, the event answered his prediction, and no further damage was sustained from the sharks during the fishery of that year. It was firmly believed by the Indian divers that this was owing to the prayers and charms of the conjuror, and he was afterwards held by them in the highest esteem and veneration.

As soon as the oysters are taken out of the boats, they are carried by the different people to whom they belong and placed in holes and pits dug in the ground to the depth of about two feet, or in small square places cleared and fenced round for the purpose, each person having his own separate division. Mats are spread below them to prevent the oysters from touching the earth; and here they are left to die and rot. As soon as they have passed through a state of putrefaction, and have become dry, they are easily opened without any danger of injuring the pearls, which might not be the case if they were opened fresh, as at that time to do so requires great force. On the shell being opened, the oyster is minutely examined for the pearls; it is usual even to boil the oysters, as the pearl, though commonly found in the shell, is not unfrequently contained in the body of the fish itself. The stench occasioned by the oysters being left to putrefy is intolerable, and remains for a long while after the fishing is over. The nauseous smell, however, is not able to overcome the hope of gain.

In preparing the pearls, particularly in drilling and stringing them, the black people are wonderfully expert. A machine made of wood, and of a shape resembling an obtuse inverted cone, about six inches in length and four in breadth,

is supported upon three feet, each twelve inches long. In the upper flat surface of this machine, holes, or pits, are formed to receive the larger pearls, the smaller ones being beat in with a little wooden hammer. The drilling instruments are spindles of various sizes, according to that of the pearls; they are turned round in a wooden head by means of a bow handle, to which they are attached. The pearls being placed in the pits, and the point of the spindle adjusted to them, the workman presses on the wooden head of the machine with his left hand, while his right is employed in turning round the bow handle. During the process of drilling, he occasionally moistens the pearl by dipping the little finger of his right hand in a cocoa-nut filled with water, which is placed by him for that purpose; this he does with a dexterity and quickness which scarcely impede the operation, and can only be acquired by much practice. They have also a variety of other instruments, both for cutting and drilling the pearls. To clean, round, and polish them, a powder made of the pearls themselves is employed.

We reached home without accident, and the treasures we had brought were fully appreciated.

The next morning Jack reminded me of the promise I had made to allow him to serve up a dinner for us in the Otaheitan fashion. He began by digging a deep trench; he then took the pig, washed it with care, rubbed the interior with salt, and filled it with a sort of stuffing made of meat, potatoes, and different roots. When the trench was full of combustibles he set it on fire, and from time to time threw in a quantity of pebbles, which soon became red-hot. He then enveloped his "roast" in leaves and pieces of bark; a hole was made in the burning cinders large enough to receive it, and it was then covered with red-hot stones, and the hole filled up with earth to keep out the air.

My wife had observed all these preparations with a smile, and at the sight of this last ceremony exclaimed, "Oh, what a mess! A process of that kind may be all very well for savages, but you cannot think that we can digest such a dish of burned meat as will come out of that hole?"

But Jack did not despair, and he made a learned appeal to the testimony of navigators in favour of the Otaheitan mode of cookery. He allowed the pig to remain for about

two hours; and it was not without astonishment that, after having taken off the triple layer of earth, cinders, and stones, we found the meat cooked to a nicety, and the odour so savoury that the perfume alone would have delighted the heart of a Parisian *artiste*. Jack triumphed, his good mother avowed that she was vanquished, and every one proceeded without delay to taste the pig. Some ashes which had fallen on it were carefully removed, and the meat was pronounced delicious. That which astonished me most was the rich odour with which it was impregnated, and I attributed it to the leaves with which it had been cooked. I made an examination, and came to the conclusion that this was the raven-sara of Madagascar, the root called by naturalists *agathophyllum*, or "good-leaf."

Jack's glowing description of Pearl Bay and the adjacent shore induced my wife, though reluctantly, and notwithstanding her old grudge at the sea, to accompany us on a cruise to view this land so bountifully endowed by nature. The pinnacle was prepared accordingly, and early next day we bade adieu to Rockhouse. We embarked under the most favourable auspices; the weather was delightful, a fair wind swelled our sails, and our little vessel sped on at a considerable rate.

We soon came in sight of the promontory of the bay, when suddenly the vessel ran against a black mass, and was nearly upset by the shock. My wife uttered a cry of terror; but the boat soon righted, and I perceived that the obstacle was not a point of rock, as I had thought, but a marine monster of the family of blowers; for we soon saw him throw up into the air two spouts of water mingled with blood. I instantly pointed the cannons of the pinnacle, and a discharge of artillery prevented the creature from overturning us, which he certainly would have done if the blow had not stunned him. We saw with pleasure that the tide bore the enormous mass to a sand-bank a little distance from the shore, and there it lay like a stranded ship.

"After the whalc," says one naturalist, "there is no class of cetaceous fishes so large as the cachalot, and it can even dispute its supremacy in the ocean with the whale, as it is better armed and defended. The cachalots swim in large herds, and are found in almost all seas; and from the poles

to the equator there is not a spot that does not contribute to their nourishment. The large-headed cachalots sometimes attain the enormous length of eighty feet; they are agile and courageous; while the whales, on the contrary, are timid, and seldom leave their customary resorts. There are seven sorts of cachalot, or white whale. Its principal distinction is, that it has the lower jaw furnished with a great number of teeth, while the upper has but three; it has the nose blunted, and its head alone forms nearly the half of its whole bulk. It has a small tongue, but a throat large enough to swallow an ox-whole; and a shark fifteen feet long has been found in the body of a cachalot. The cachalot furnishes less oil than the whale; but this deficiency is amply supplied by the spermaceti—a shining semi-transparent matter, very light, inflammable, and easily dissolved in oil. This substance, when fresh, has but little smell, and an agreeable taste. It is used in medicine, and candles are made from it, the whiteness of which is fully equal to those manufactured of wax.”

Seeing the cachalot secured, we proceeded onwards to Pearl Bay, where we passed a happy day, and then returned to our home at Rockhouse.

After breakfast on the following day I proposed to return to the bay where the cachalot, stranded on the shore, offered us a magnificent prey. We debated in what manner we could carry away the oily substance with which the head and dorsal bone of this animal is filled, as we had no barrels in which we could gather the valuable product. Jenny rescued us from this dilemma by mentioning a process she had seen employed in India, which was, to put the half-liquid substance into wet linen-bags. I gathered all the sacks I could find, and, dipping them in the sea-water, stretched them open with pieces of branches. We were two hours engaged in these preparations. The tide was not yet high enough to allow the pinnacle to approach the bank where the whale lay, so we took the canoe and the kajack, and set off. The monster lay extended like a huge wall. Fritz, after having armed his feet with cramp-irons, climbed upon its back, and cut open the enormous head of the cachalot with a hatchet, then with a ladle dipped the spermaceti out of the head, and emptied it into one of the sacks which I held ready, while Francis covered the outside with wet sand and mortar, forming a solid crust, through



"'They are Europeans,' cried Fritz, 'you can easily judge from the face of the officer. Malays would be more dusky than that.'"—P. 285.

which none of the grease could escape. Our sacks were soon full, for as fast as Fritz emptied the head, the cavity was filled by a fresh supply from the back-bone. The head is the chief reservoir of the spermaceti, which, however, is found in several other parts of the body, mixed with the sperm oil. We cut a quantity of willows, and wove them into pointed caps, with which we covered the sacks, in order to shield them from the sun.

We now thought of returning. The tide was high, but the load was too heavy for the boat, we therefore were obliged to leave the bags and return to our friends.

I was undecided as to what means I should adopt to transport the spermaceti to Whale Island, for it was here that we always performed our less cleanly avocations, such as the preparation of fish, the melting of fat, the tannery, and the fabrication of candles. The materials for these works were kept under an overhanging rock, which protected them from the sun and storm.

Every one gave his advice. When it came to Jenny's turn, she said, in her soft, pleasant tone, "If you are willing, my dear papa, I will undertake to bring over your sacks." This proposition was received with a shout of laughter from my boys, who could not believe that an inexperienced girl would be able to effect a thing which appeared to *them* so difficult.

The next morning, however, Jenny prepared for her expedition. She seated herself in Fritz's kajack, untied it, and rowed off with a grace and ease that surprised me. I would have called her back, but the little vixen gaily kissed her hand, and soon was far on her way toward the bank of sand. She had chosen just the right time—the tide was rising, and had just commenced to wet the bottom of the sacks. She disembarked, fastened all the sacks by cords to a rope which she had with her, and tied the rope to the kajack, and, again embarking, drew after her all the sacks, the contents of which, being light, floated like bladders on the water. We received her with every demonstration of joy and gratitude as she jumped on shore, pointing triumphantly to the long line of sacks which followed her little skiff.

The object of the great accumulation of spermaceti in the head of the white whale is supposed to be to float that enor-

mous mass. The part in which it is lodged is quite distinct from the cranium containing the brain, which spermaceti was at one time supposed to be. During the life of the animal, the spermaceti is in a fluid state; and, on the head being opened, has the appearance of an oily, clear, white liquid. On exposure to the air, the spermaceti concretes, and deposits from the oil. They are then separated, and put into different barrels. The head of a cachalot sixty-four feet in length has been found to yield twenty-four barrels of spermaceti, and from seventy to one hundred barrels of oil.

We had hitherto been free from illness of any serious character; during the entire period of our sojourn in the land, not one of us had been confined to a sick-bed for an entire day. Yet, though generally Providence had vouchsafed to extend to us her protecting hand, we nevertheless encountered occasional mishaps, which recalled to our minds that we were still liable to accidents of many kinds.

One day, when what sailors usually term a smart breeze was blowing in the direction of Shark Island, the boys and myself resolved to proceed on a voyage of inspection to that section of our dominions. When about half way, it being necessary to shift the sail, Jack ran up the mast, holding by the ropes; but before he reached the sail, the rope which he held broke suddenly. He was precipitated into the sea, and disappeared in a moment; but he soon rose to the surface, trying to swim, and mingling his cries with ours. Fritz, who was the first to see the accident, was in the water almost as soon as Jack, and, seizing him by the hair, swam with the other hand, calling on him to try to keep afloat, and hold by him. When I saw my two sons thus struggling with the waves, I would, in my despair, have leaped in after them, had Ernest not held me, and implored me to remain, to assist in getting them into the pinnace. He had thrown ropes to them, and a plank. Fritz had contrived to catch one of the ropes, and fastened it round Jack, who still swam, but feebly, as if nearly exhausted. Fritz was an excellent swimmer; he preserved all his presence of mind, calling to us to draw the rope gently, while he supported his brother, and pushed him towards the pinnace. At last, I was able to reach and draw him up; and when I saw him extended, nearly lifeless, at the bottom of the pinnace, I fell down senseless beside him. How

precious to us now was the composed mind of Ernest! In the midst of such a scene, he was calm and collected; promptly disengaging the rope from the body of Jack, he flung it back to Fritz, to help him in reaching the pinnacle, attaching the other end firmly to the mast. This done, quicker than I can write it, he approached us, raised his brother so that he might relieve himself from the quantity of water he had swallowed; then, turning to me, restored me to my senses by administering to me some drops of rum, and by saying, "Courage, father; you have saved Jack, and I will save Fritz. He has hold of the rope—he is swimming vigorously—he is coming—he is here!"

It is with dismay that I cast my eyes over the number of pages which have unconsciously accumulated under my hand. To me, indeed, all the minutiae of our daily life were possessed of interest, and I was never weary of recording them; but I must remember it is otherwise with those who may read this narrative, and I shall therefore pass on rapidly over the remaining ground.

Each year resembled the preceding one in the similarity of its works. We had our fields to sow, our harvests to gather, and our domestic cares to attend to. These formed the almost unbroken circle of our existence. My only desire is, that the hope I entertained in writing this journal may be realized, and that my readers, if I ever have any, may learn how, with God's blessing, to provide for their necessities, should they be placed, as we have been, in a position so trying. I have not written as a learned man would have done, and all my results may not have been arrived at according to the correct theory; but we were in an extraordinary position, and were obliged to depend on our own resources. We placed our entire trust in the mercy of God, and he ever watched over and protected us.

CHAPTER XLI.

A CRUISE—A NEW DOMAIN—ELEPHANTS—ORANGES—BIRDS
OF PARADISE—SERPENTS.

It occurred to me that, as we had no occupation that required our immediate attention, we might extend our knowledge of the country by an expedition beyond the points we had yet reached. My sons and myself resolved unanimously to set out on a maritime excursion of a week's duration. We proposed to proceed by the Bay of Pearls to Good Rencontre, and from thence to cruise along the unknown coast for some distance. It was arranged that my wife and Jenny should remain at home, whilst we were engaged in this voyage of discovery. In order, however, to maintain daily intercourse with those we left behind, we took with us eight pigeons to serve as letter-carriers. We immediately prepared our arms and provisions, and the next day we weighed anchor just as day was dawning. Gaily quitting the shore, the strong current of the Jackal River soon brought us into the sea. The sail of our pinnace fluttered in the fresh breeze; Fritz and Francis going on before in the kajack as pilots.

We arrived without adventure at Good Rencontre, where we passed the first night of our voyage. Here we despatched one of our pigeons to announce our safe arrival at the island. The bird rose and soon disappeared from our sight in the direction of Rockhouse. This gave Dr. Ernest an opportunity of entertaining us with an account of the passenger pigeon.

Ornithologists have given to this sort of pigeon the name of *Columba Migratoria*, or traveller-pigeon, and its habits fully justify its name. Sometimes visiting the Gulf of Mexico, other times fixed at Hudson's Bay, it will pass over in its excursion more than seven hundred leagues easterly; but it never flies farther westward than the chain of Rocky Mountains. Some of them have, however, crossed the ocean, and sometimes reached Scotland. Their power of flight, and the extent of their vision, is astonishing; and although they soar very high, they can perceive the fruits that they feed on,

such as juniper-berries, and they will fly down to obtain them. They fly in such dense, numberless bodies, as sometimes to intercept the light of the sun; and it has been calculated that they fly twenty-five post-leagues per hour. The structure and form of their bodies are admirably adapted to the long voyages they undertake. Their wings are proportionately larger than those of any other sort; their long, flat tail is a rudder which serves to assist the force of their wings. There is a very great difference in the colour of the plumage of the two sexes; the modest exterior of the female beautifully contrasts with the dazzling plumage of the male, who is not only handsomer, but larger than the female; from the extremity of his beak to his tail, his length is about two feet. The distinctive and predominant character of this kind of pigeon is the love of society. A celebrated naturalist estimated the number of a troop he encountered on the banks of the Ohio at hundreds of millions, and his calculation was far from being exaggerated. This cloud of birds was three hours in passing over his head, and its length was sixty-five leagues. Counting two birds to the cubic foot, this band was composed of twelve hundred millions of birds, and they flew so closely that they quite obscured the ground beneath them. Wilson saw a troop of pigeons, which he calculated amounted to more than 2,230,000,000; the whole length was 240 miles. Allowing each pigeon to consume half a pint of food daily, the whole quantity would exceed 17,420,000 bushels daily. These immense columns are formed by the reunion of a great number of distinct parties, but all having a common purpose. They have also the singular habit of all choosing the same roosting-place, where they assemble at evening, and disperse the next morning in search of food. The weight of the birds breaks down the branches of the forest, and gives it the appearance of having been visited by a severe storm. The nourishment consumed each day by this enormous quantity of pigeons has been calculated, allowing a moderate ration to each individual—although they eat often and much—and it has been found they consume more than the most populous of the European capitals. At the break of day they disperse to lay under contribution a space equal to several of the Swiss cantons. The breeding-place is always selected as retired as possible, and concealed from the natural enemies of the birds;

but all precautions are insufficient against man, the most dangerous of their foes. When these roosts are first discovered, the inhabitants, from considerable distances, visit them in the night with guns, clubs, long poles, pots of sulphur, and various other engines of destruction. In a few hours they fill many sacks, and load horses with them. By the Indians, a pigeon-roost or breeding-place is considered an important source of national profit and dependence for that season. Not far from Shelbyville, in the State of Kentucky, there was one of these breeding-places, which stretched through the woods in nearly a north and south direction, was several miles in breadth, and was said to be upwards of forty miles in extent. In this tract almost every tree was furnished with nests wherever the branches could accommodate them. The pigeons made their first appearance there about the 10th of April, and left it altogether with their young before the 25th of May. As soon as the young were fully grown, and before they left the nests, numerous parties of the inhabitants from all parts of the adjacent country came with waggons, axes, beds, cooking utensils, many of them accompanied by the greater part of their families, and encamped for several days at this immense nursery. The ground was strewn with broken limbs of trees, eggs, and young squab pigeons, which had been precipitated from above, and on which herds of hogs were fattening. Hawks, buzzards, and eagles were sailing about in great numbers, and seizing the squabs from the nests at pleasure; while, from twenty feet upwards to the tops of the trees, the view through the woods presented a perpetual tumult of crowding and fluttering multitudes of pigeons, their wings roaring like thunder, mingled with the frequent crash of falling timber; for now the axemen were at work, cutting down those trees that seemed to be most crowded with nests, and contrived to fell them in such a manner that, in their descent, they might bring down several others; by which means, the falling of one large tree sometimes produced 200 squabs, little inferior in size to the old ones, and almost one heap of fat. On some single trees upwards of 100 nests were found, each containing one squab only. Audubon states that the bird lays *two* eggs of a pure white, and that each brood generally consists of a male and female. The female sits thrice a-year. It was dangerous to walk under these

flying and fluttering millions, from the frequent fall of large branches, broken down by the weight of the multitudes above, and which, in their descent, often destroyed numbers of the birds themselves; while the clothes of those engaged in traversing the woods were completely covered with the excrements of the pigeons.

Having rested tranquilly in the hut constructed by Jenny, which, though rather primitive in its architecture, and somewhat rude as to its embellishments, nevertheless afforded us all comfortable shelter during the night. Before going to rest, we adopted our usual precaution of lighting fires to scare away any unwelcome visitors from the forest. Next morning we went in search of any fragments of the wreck of the vessel that had thrown Jenny upon these shores. Our search was not altogether unsuccessful. We could not expect to find much three years after that event; consequently, we were perfectly satisfied with the discovery that portions of the wreck were firmly imbedded in the mud, but we did not stop to make any further investigation.

We now resumed our voyage, the pinnace keeping aloof from the shore, Fritz, in the kajack, running close in to observe more distinctly the configuration of the land; thus acting as pioneer, he occasionally went on shore, when any feature of the coast attracted more particularly his attention. I kept at some distance from the coast, as I was afraid there might be some hidden rocks in shore, which might destroy our barque. The distance was great enough to permit us to take in at one glance the splendid panorama which was, as we progressed, unfolded before us.

After having proceeded some way along a coast entirely new to our eyes, we beheld successively a range of scenery which was sublime in the extreme; rocks, the gigantic cliffs of which seemed to lose themselves in the clouds—vegetation of a tropical luxuriance—animals roaming in savage tranquillity on the coast—birds of every hue hovering over us, all announcing a world entirely new. The farther we advanced, the more the landscape appeared to change its aspect. Now and again we passed a majestic river, which, piercing the land, and flowing silently downwards, lost itself in the sea. The mouth of one of these resembled an immense bay. Fritz determined to ascend it some little way; he found its banks

covered with large trees, willows, and vines, so thickly woven together that they resembled a huge mat, strewed with birds, monkeys, and even squirrels; there were aquatic birds that would at times fall down on the water, as if struck by a ball, but no sooner touch the surface than as suddenly rise, stretching out their long necks, terminated by a flat head and pointed beak, forming an exact resemblance of the serpent. This bird, which is called the Amhingu, or snake-neck bird, lives in the water, but builds its nest in trees.

Fritz, in his kajack, ascended the somewhat powerful current of another broad and noble river, and went on shore with the intention of shooting a bird; and scarcely, however, had he fired, when an enormous mass rushed from the willows, and, catching up his bird, he fled to the kajack with his utmost speed. He then perceived a tapir and her young ones, who, frightened by the report of the gun, were endeavouring to gain the opposite bank. Descending the river, he pursued his route, and was for some time unable to land; the rivers and shores were both defended by guards he had little desire to come in contact with, for he recognised elephants, lions, and panthers. He saw, also, antelopes and troops of gazelles; but these timid animals seemed only to have been placed there as food for the larger denizens of the forest.

A few leagues farther on, the appearance of the coast suddenly changed, and, as if the ferocious animals had had their quarters marked out for them, Fritz ceased to perceive any. The shore appeared peaceable, but desolate; the song of some inoffensive birds were the only noises which broke the calm stillness, and he resolved to land. He accordingly fastened his kajack as strongly as possible, and jumped lightly to the shore; and, being hungry, he lighted a fire, and began to prepare a dinner from a fat goose which he had shot while landing, and a dozen of oysters. While he was thus occupied in appeasing his hunger, he saw advancing towards him, from a little wood which skirted the river, a sort of creature which, by its movements, height, and formation, he at first took to be human. The fire did not frighten him. He walked upright, holding a stick in his hand, and advanced towards Fritz without the least hesitation, who, at this sight, felt an emotion of mingled joy and fear, for he thought he

saw a man. But this illusion was of short duration, and he soon recognised in the strange being an ourang-outang. Fritz would willingly have let him approach, but he perceived that he was followed by a whole troop of the same species, and, as he was afraid to encounter such a multitude, he fired his pistol, and the entire cavalcade, screaming with terror, disappeared in the woods. The ourang-outang resembles the human form to such a degree, that he has been called the wild man of the woods. The chimpanzee, however, is that species of ape usually placed next to man in the scale of animal existence. Linnaeus, with all the profound knowledge, acuteness, and calm, unbiassed spirit of inquiry for which he was so eminently distinguished, long hesitated whether to consider the chimpanzee as a second species of the genus man, or the first among the apes. It was only, indeed, in his last edition that he finally adopted the latter opinion, and learned to consider this extraordinary animal as generally distinct from man himself.

Having recovered from his surprise at the unexpected apparition of the oranges, Fritz quietly finished his repast, returned to the kajack, and continued his inspection of the coast.

Gradually the country assumed another aspect, differing materially from any he had ever yet seen. There were beautiful green plains, dotted over with clumps of towering palms; little lakes surrounded with osiers, upon the borders of which sported herds of elephants; thick tufts of cactus of all sorts, loaded with flowers and fruits, which the enormous rhinoceros seemed to devour, without paying any attention to the thorns; beautiful clumps of the mimosa, the high tops of which the towering giraffe devoured with as much facility as a goat would a small shrub. While coasting along a little wood, Fritz observed that the trees were loaded with rare and most beautiful birds, among which were lyras, parroquets, humming birds—in one word, a complete assemblage of all that array of beautiful plumage which decorates the forest of the New World. Charmed with the picturesque appearance of the scene that here met his view, he hastened back towards the pinnacle, to invite us to make this our resting-place.

Meanwhile, being uneasy at the protracted absence of our

pilot, I thought it advisable to fire off a gun as a signal for him to indicate his position, and assure us of his safety. We were gratified almost immediately after by hearing the report of the gun which he fired in reply. Observing the flash in the distance, I remarked that the space between us and Fritz was about a mile, and that in about a quarter of an hour he might be with us; and so it happened. He appeared exactly after the interval I had suggested.

While we were sailing along, Ernest, who always wanted to know the whys and wherefores of everything, asked me how I managed to calculate the exact distance that separated us from his brother. "In a very simple manner," said I. "It is known that light passes through space with extreme rapidity, and that in a second after it is evolved it has traversed space to the extent of eighty leagues. Sound, on the contrary, is much slower in its transition, and in the same time passes through a space of about 1,100 feet. I knew that my pulse, like that of every man in good health, beats regularly sixty times per minute; I counted four beatings between the smoke and the report, from which I calculated Fritz was distant from us about 4,400 feet. I then immediately knew that it would occupy about a quarter of an hour for him to row to us. The wind, the rain, the state of the atmosphere, might counteract these effects, but generally it can be calculated pretty accurately."

Captivated by the description Fritz gave us of the contiguous shore, I agreed to proceed there with the pinnace, and, guided by the kajack, we were soon safely anchored under a bluff of the bay, which sheltered us from the breeze. Glancing at the land, I was satisfied that Fritz had in nowise overcharged his delineation of its luxuriance; but the evening drawing on, we prepared to pass the night on board, and gain fresh strength for a ramble on the morrow. Early next morning we ascended the river some considerable distance, and cast our anchor at a spot which presented a landscape of more than usual beauty.

We landed on the brink of an extensive thicket, composed of a beautiful shrub, recognised by Ernest to be a species of mimosa, with slender, elegant leaves, and rich scarlet flowers. The Indians call it the tree of peace. They carry a branch of it when they have no hostile intentions; in all their

assemblies, when war is proclaimed, they make a fire of these branches, and, if all are consumed, it is considered an omen of victory. The trunk of this plant is knotty and stunted, about three or four feet high, and spreads its branches horizontally, clothed with its beautiful foliage, and so thickly interwoven, that the little quadrupeds who make their dwellings in these thickets are obliged to open covered roads out of the entangled mass of vegetation. My sons cut a few branches. At the first blow of the hatchet, a number of beautiful little creatures poured forth on all sides. They resembled the kangaroos of our part of the island, but were smaller, more elegant, and remarkable for the beauty of their skin, which was striped like that of the zebra. "It is the striped kangaroo," cried Ernest, "described in the voyages of Peron. How I should like to have one!" He lay down very still at the entrance of the thicket, and soon had the satisfaction of seizing two, which leaped out almost into his arms. They endeavoured to escape, but Ernest held them fast. One was a female, which had her young one in her pouch, which my son took out very cautiously. It was an elegant little creature, with a skin like its mother, only more brilliant; it was full of graceful antics. The poor mother no longer wished to escape, all her desire seemed to be to recover her offspring, and to replace it in its nest. At last, she succeeded in seizing and placing it carefully in security. Then her desire to escape was so strong, that Ernest could scarcely hold her. He was anxious to keep and tame her; accordingly, emptying one of the chests, he made a cage for her, and placed it on board the pinnace.

Jack, in the meantime, had gone off on a ramble by himself; he brought me a branch of the clove-tree, anxious to ascertain whether the fruits upon it were of any use. I at once saw what it was.

The clove-tree is of the form and size of a laurel; its trunk is about a foot and a half thick, hard, branching, and covered with a bark like that of the olive. The branches are of a reddish colour, and produce very many leaves; the flowers grow in bunches at the end of the branches; they are rose-coloured, with four blue petals of a very strong odour. The middle of the flower is occupied by a number of purplish stamens; the calix is cylindrical, divided into

four portions, of the colour of soot, of an aromatic smell. After the flower is dried, it changes into an oval-formed fruit, like the olive, first light-coloured, then reddish, then a blackish brown, and containing a hard nut, divided by a deep furrow. If left on the tree, they will not drop until the second season; they are then planted, and in eight or nine years will bear fruit. The Dutch preserve the new cloves with sugar, and, in sea-voyages, they eat them after dinner, to render their digestion better, and to prevent scurvy. The cloves are gathered before the flowers open: the season is from the month of October until February, and the fruit is mostly gathered by the hand. The rest are knocked off with sticks, on linen cloths placed on the ground. At first, the cloves are reddish, but they blacken in drying; they are then exposed on hurdles to the action of smoke, which gives them the colour we know them by. None understand the preparation of cloves better than the Dutch, of Ternate; they are almost the only persons who gather, cultivate, and prepare the cloves for the use of the whole world.

Ascending a rising ground that dominated an extensive tract of the surrounding country, we saw the region watered by the river spread out like a carpet beneath us. Immediately in front, the noble stream flowed on its tranquil course, a forest of majestic trees throwing a sombre shade upon its surface. Infringing on the forest, a vast plain stretched towards the horizon. Here numerous herds of elephants were grazing, in troops of twenty or thirty; some were disporting themselves in unwieldy gambols, whilst others, nearer the river, were squirting the cooling fluid over the heated bodies of their companions. With this sight in all its glorious magnificence displayed before us, Ernest embraced the opportunity to say something about the elephant.

The elephant is the most singular of all quadrupeds. In considering his form with regard to our idea of proportion, it is very ungraceful; his body is large and thick, his legs clumsy and ill-formed, his feet round and crooked, his monstrous head is covered with a thick skin, and the skull in front is seven inches in thickness; his ears fall over his cheeks like withered leaves; his trunk, his feet, his tusks, are as ungraceful to the eye as they are necessary to the animal. The warm climates of Asia and Africa are the special habi-

tations of the elephant; those of India are much larger, and, consequently, stronger than those of Africa. When the elephant is deprived of his skin and flesh, the hind legs appear shorter than the front, because they are less disengaged from the mass of the body; these legs resemble more those of a man than of a quadruped; the under surface of the foot is furnished with a horny bone, about an inch thick, and resembling the sole of a shoe. The strength of the elephant's legs is proportioned to the heavy weight of his body; but he is said to go very fast, and easily keep up with a man running; he also swims very well. The most peculiar organ of the elephant is his trunk, in which we find movements and uses not in any other individual animal. The trunk is very long, and the animal lengthens and contracts it at pleasure. This organ, which is properly his nose, is furnished with veins, nerves, &c., and is hollow like a tube. The extremity of the trunk is enlarged like the mouth of a vase, and it has a membrane like a finger at the end; and on the under edge is a sort of tubercle, which acts as an opposable point—in short, as a thumb. By means of the trunk the elephant executes as much as we can do with our hands. This organ, at the volition of the elephant, will uproot trees or gather grass—raise a piece of artillery or pick up a comfit—kill a man or brush off a fly. It conveys the food to the mouth, and pumps up the enormous draughts of water, which, by its recurvature, are turned into and driven down the capacious throat, or showered over the body. The neck of the elephant is too short to allow of its putting its head to the earth to crop the grass or appease its thirst; it dips the end of its trunk into the water, and, sucking it full, turns it under, and empties it into its throat. The young elephant takes its mother's milk in the ordinary manner, but uses its trunk to drink, the same as the adult animal. The elephant is able to tear down trees and branches with this powerful organ, and it can squirt water to an immense distance. The mouth of the elephant is situated in the very lowest part of the head, and is furnished with eight teeth, four in the upper and four in the lower jaw. The elephant has also two very long tusks proceeding from the upper jaw, which serve the animal as defences; these tusks furnish ivory. It has very small eyes, and it has eyelashes, which distinction is confined to the ele-

phant, man, monkeys, the ostrich, and the great vulture. The body of the elephant is covered with a wrinkled skin, very dirty and unpleasant in appearance. The wild elephants live on grass, herbs, branches of trees, &c.; and in the month of August they make incursions into the rice-fields, and do much damage, unless they are kept off by continual fires. These enormous eaters can exist seven or eight days without food; their drink is water, which they always render muddy before tasting. The wild elephants sometimes enter the tobacco-fields, which they ravage. If the plant is young, it does them no harm; but when it is old and strong, it puts them to sleep, and then the negroes fully avenge themselves for the damage the monstrous beasts have done. The elephant has much instinct and docility. It is susceptible of attachment, affection, and grief. It is very easily tamed, and one is surprised to see so powerful a beast so docile.

Descending from the eminence which had enabled us to distinguish the outlines of the country generally, we directed our steps towards a smiling valley which had particularly invited our inspection. Here we entered one of those "delightful woods, where fruits of fragrance blush on every tree." The grass under foot was very thick, the trees of noble growth; many unknown to us were loaded with fruit. It would be difficult to name the endless multitude of flowering plants that clothed with brilliant colours this lovely valley. It was a botanic garden of nature's own formation. Ernest was in ecstasies. He wished to carry away the entire flora, but could only secure a very modest portion of the specimens. There were plants of every hue: the elegant melaleuca, the tamarind, the nutmeg-tree, the Bengal rose blending its flowers with the fragrant jasmine; but more pleasing than all were the fragrant groves of the orange-tree, the perfume of which filled the air with sweetness. The banana also spread its sheltering branches here, under which we sought a little repose.

Bernardin de Saint Pierre, justly and poetically remarks that the banana alone supplied everything necessary for the first man. It produces the most healthful food in its farinaceous, succulent, sugary, aromatic fruit, precisely the diameter of the mouth, and grouped like the fingers of the hand. The tree resembles a magnificent parasol, the top

formed by an assemblage of long, large, shining green leaves. These leaves droop at the extremities, and thus form a charming cabin, impenetrable to the sun or rain. The leaves are very flexible, and the Indians cover their huts with them, make thread from them, and use them as shrouds for corpses; so the banana nourishes, lodges, clothes, and buries a man. The taste of bananas is different in different kinds; the common sort, called fig-banana, has a rich, sweet, mealy flavour, and has the consistence of butter in winter, so that there is no need of teeth to masticate it. The banana has also other singular peculiarities: although it has no skin, yet it is never attacked by insects or birds, and it will ripen if preserved in the house, and will remain uninjured for more than a month. It is under the banana-tree's delicious shade, and by partaking of its invigorating fruit, that the Indian Brahmin is able to exist so long—a banana-tree on the bank of a stream sufficing for all his wants.

Possessing in our library a copy of Risso's "*Histoire Naturelle des Orangers*," in which there are excellent figures of above a hundred varieties, we had all derived much pleasure from the perusal of the work, and were glad to have an opportunity of bringing the information we had obtained from it to bear in the actual investigation of the plant itself.

Amongst other varieties is the sweet-skinned orange, which is the *pomme d'Adam*, or forbidden fruit, of the shops of Paris. It is very different from the shaddock, which is amongst the largest fruits known when it arrives at its greatest size; when at the smallest, it forms the forbidden fruit of the English markets. The lime, in foliage, resembles the lemon. To this last class belongs the very uneven fruit called *pomo d'Adamo* by the Italians, because they fancy that the depressions upon its surface look as if they still bore the marks of our universal father's teeth.

• The *citrus medica*—the citron—supposed to be the Median, Assyrian, or Persian apple of the Greeks, is probably the most beautiful species of the genus; it is chiefly valued for the fragrance of the rind of the fruit, from which a delicate sweetmeat is prepared. It has a majestic port, shining leaves, and rosy flowers, which are succeeded by fruit whose beauty and size astonish the observer, at the same time that their sweet odour gratifies his senses. The trees are constantly in

vegetation, the flowers appear even in midwinter, and there is so continual a succession of them that flowers, young fruit, and ripe fruit, may always be seen together at the same moment. In China there is an enormous variety, with its lobes all separating into fingers of different shapes and sizes, whence its name of fingered citron. The Chinese esteem it very much, both for its rarity and for the grateful odour of its rind. They place the monstrous fruits upon porcelain dishes, and have them in their apartments to fill the air with fragrance.

The bigarade, or bitter orange, differs from the sweet orange in forming a smaller tree, having broader leaves and larger and sweeter flowers, on which account it is always selected in preference for the purposes of the perfumer. The horned bigarade is in great estimation on account of the powerful and delicious perfume of its flowers. The bizarre bigarade, with purplish or white flowers, and fruit of different sorts, is a curious *lusus naturæ*, which was once thought to be the greatest prodigy in all the vegetable kingdom. It is, however, merely one of those sports, as they are technically called by gardeners, in which, owing to some unknown cause, some one individual assumes the appearance of two or more others in particular parts. Analogous instances are the grape called the variegated chasselas, some of whose fruit is black, some white, and some striped with both colours; the camellia, which bears red, white, and party-coloured flowers on the same stem; and the chrysanthemum, some of whose flowers are purple, and others yellow. The female bigarade contains orange within orange. The circumstance from which this variety derives its name is not at all uncommon in the genus citrus, but it exists here in perhaps the most strongly-marked manner. An orange, in its natural state, consists of one whorl of carpels, which are consolidated into a round fruit, each of whose lobes is one carpel. But it sometimes happens that two whorls of carpels combine to form the same fruit; in that case the inner whorl is consolidated into a central orange, and the outer whorl grows over it; or, it may happen that three whorls of carpels constitute the fruit: in that case the innermost whorl will combine into an orange in the centre, the second whorl will form a coating over it, and the most exterior whorl will enclose the whole. Finally, the

carpels many separate wholly, as in the fingered citron, or in part, as in the fingered orange and bigarade; and then the fruit consists of a number of lobes more or less distinct. Until the discovery made by Goethe of the real nature of compound-fruit, oranges of this kind were looked upon as something wondrous, and many idle speculations existed as to their cause.

No variety is more generally cultivated than the curled-leaved bigarade, for the sake of its flowers, which are large, sweet, and produced in extraordinary profusion. The French gardeners call it *le bouquetier*, or nosegay plant. The plant itself is far more dwarfish than the other varieties, and is one of the most robust of its race. The double-flowered bigarade, the common double orange of the nurseries, is a great favourite in gardens, because of its multitude of fragrant double flowers, which do not fall in pieces so quickly as those which are single. The myrtle-leaved bigarade is generally both in flower and fruit at the same time. On this account, and because of its dwarf habit, it is employed by the Chinese gardeners as an edging of flower-beds, in the same way as the dwarf-box in Europe.

The tamarind presents an example of one of those natural combinations of gummy, saccharine, and acid principles which are of such great utility in hot climates. It is used not only in India, but in Africa, as a cooling article of food, and the travellers across the deserts carry it with them to quench their thirst. In Nubia, it is allowed to stand in the sun till a kind of fermentation takes place; it is then formed into cakes, one of which, dissolved in water, forms a refreshing draught. In India, a kind of sherbert is made with it; and, by the addition of sugar, it becomes a source whence vinegar is readily obtained. In the fevers and bilious complaints, and even dysenteries, of these climates, it proves highly serviceable. Boiling water poured over tamarinds yields a drink which is very grateful in inflammatory complaints. An agreeable whey may be made with it by boiling two ounces of tamarind pulp with two pints of milk. In times of scarcity in India, the seeds are eaten, being first toasted and then soaked for a few hours in water, when the dark skin comes easily off; they are then boiled or dried, and taste like common field beans. For a knowledge of the East Indian

tamarind in Europe, we are indebted to the Arabians. It is a native of various districts in the East Indies, and also of the tropical parts of Africa. It forms a handsome tree with spreading branches of a light colour and flowers with a straw-coloured calyx and yellow petals streaked with red; the filaments of the stamens are purple and the anthers brown. The timber of this tree is very firm, hard, and heavy, and is applied to many useful purposes in building. The fruit is much larger in the East Indian than the West Indian tamarind. The shell being removed, there remains the flat, square, hard seeds, imbedded in a pulp with membranous fibres running through it. In the East Indies, the pulp is dried, either in the sun, and this is used for home consumption, or with salt added, and dried in copper ovens, which kind is sent to Europe.

Whilst we were traversing this paradise of the wilds, our dogs started a flock of the most beautiful birds we had ever seen. Fritz immediately fired off his gun, and, although not wounded, a bird fell down from fright into his hands. He also captured a second, which had become entangled in a shrub. This last was a magnificent one—its beauty beggars all description. It gave us, however, a notion of what nature can produce in form and brilliancy of plumage. Its tail was more than two feet in length, and two of the feathers were longer than the others, and glowed with the most beautiful shades of gold, green, and brown, terminated at the end by a spot of black, exactly like velvet. Ernest recognised it as being the bird of Paradise—the *manucodiata*, or *manucodewata*—an appellation which is said to signify at the Moluccas “the bird of God.”

With no family of birds has fiction been more busy than with the birds of Paradise. People have imagined that there was no spot on earth worthy to receive this beautiful creature, and that it would repose in no other place but Eden. From one fabulist to another came the tradition (losing nothing, as is usual with traditions, in its descent) that these “gay creatures of the element” passed their whole existence in sailing in the air. Some persons have even asserted that it had no feet at all, and never nested, but slept on the wing; that the female carried her eggs into the air and hatched them while aloft; nor were they ever supposed to touch the earth.

till the moment of their death, never taking rest except by suspending themselves from the branches of trees by the shafts of the two elongated feathers which form a characteristic of this beautiful race. The nourishment of the bird of Paradise agreed with its constitution ; therefore it existed on perfumes and vapours, and drank nothing but dew-drops. The appellations of Luftvogel, Paradysvogel, Passaros de Sol, birds of Paradise, and God's birds (to say nothing of *phœnix*, a name which was applied to one of them), kept up the delusion that originated in the craft of the inhabitants of the eastern countries where they are found. It was not only the extreme elegance and richness of their feathers that caused these birds to be sought as the plume for the turbans of the Oriental chiefs, for he who wore that plume, relying implicitly on the romantic accounts of the life and habits of the bird, and impressed with its sacred names, "believed that he bore a charmed life, and that he should be invulnerable, even where the fight raged most furiously ; consequently, the chase of birds of Paradise became very profitable.

In vain did honest Pigafetta, who is supposed to have been the first who introduced these birds to the notice of Europeans, represent them as being furnished with legs ; in vain was the same truth attested by Maregrave, John de Laet, Clusius, Wormius, and others—a fairy tale was not to be so put down. Aldrovandus himself was deceived by the birds brought over in the mutilated state, and joined in the cry against poor Pigafetta, charging him with falsehood. Jonston, in 1657, writes thus oracularly of the birds of Paradise :—"It is peculiar to them all to be without feet, (although Aristotle asserts that no bird is without feet, and Pigafetta assigns to them feet a hand's breadth in length) ;" and this he declares after Clusius had refuted the absurdity, and had stated that they had been brought to Holland (where Jonston's book was printed) with their feet on ; and after the publication of Tradescant's catalogue, wherein are mentioned, among the "whole birds" of his museum, "birds of Paradise, or *manucodiata*, whereof divers sorts, some with, some without legs." And yet this same Jonston has no mercy on that part of the fable which asserts that they live on dew, are perpetually flying, and that their eggs are hatched in a natural cavity on the back of the male. "Of a verity," says the sage, "they must necessarily

require rest, and are with ease suspended to the branches of trees by those threads in their tails." But science came, and with its magic wand dispersed the clouds of superstition which hung round the bird of Paradise. Natural history solved the mystery. It was discovered that the bird of Paradise had feet, fed on solids, and that its plumage alone made it more valuable than other birds.

Amongst other varieties of the vegetable kingdom, we found in the valley a new species of manioc. There are various kinds of this plant; one of them shoots rapidly, and its roots become mature in a very short time; a second sort is of more tardy growth; and there is another, the roots of which require the space of two years to be fit for use. The first two kinds have pernicious or unwholesome qualities when eaten raw, but the third may be eaten without fear; for all this, the two first are generally preferred, as being more productive, and requiring a shorter time for being fit for use.

We now left the valley, designing, however, on our return, to avail ourselves of its multifarious riches.

The course of our route lay along a wood of majestic oaks, and the ground was covered with acorns. On examination, I recognised them to be a kind of oak which remains always green. They grow in great abundance throughout the woods of Florida, and the Indians of North America extract from their fruit an excellent kind of sweet oil, which they use in cooking their rice. Numerous kinds of birds subsist on the acorns. This we were led to infer from the wild and discordant cries of several sorts of jays and parrots which were skipping merrily about the foliage and branches.

Passing onwards, a marshy plain opened up before us, and as we were walking along among the dried rushes, we heard a sort of deep, prolonged cry issue from a thicket of rushes. I took it to be the swamp-bird, called a bittern.

"How could a bird make a noise like that?" asked Francis. "Why, it sounds like the bellowing of a bull; it must be of tremendous size."

"Not at all," replied I. "The voice of an animal has nothing to do with its size, but only with the conformation of its throat and the muscles of the breast. Thus, the canary and the nightingale, two very small birds, fill the air with

their song, and modulate their voice to such prolonged notes as we should not think so feeble an animal capable of. As to the bittern, it is related that, when he sings, he buries the extremity of his beak in the mud of the swamp, and this gives it that deep, sonorous tone which resembles more the voice of a bull than a bird. The bittern flies in the same heavy manner as the heron, and might be mistaken for that bird, were it not for the singularly-resounding cry which it utters from time to time while on the wing; but this cry is feeble compared to the hollow booming noise which it makes in its swampy retreats."

Here we likewise observed the secretary, a bird that exists entirely upon serpents, and, judging from their numbers, we naturally concluded this locality must abound in reptiles. When the secretary, or serpent-eater, attacks a snake, it covers its breast with one wing (the wings being armed with spurs on the elbow-joints) to protect itself from the bite, and with the other strikes violent blows until it has stunned its prey; it then breaks the cranium with its beak, and finally tears the reptile in pieces.

We were now very cautious in our movements, fearing lest we might stumble upon some of the dread family of the marsh.

This was an appropriate occasion to give my sons a lesson on the natural history of the serpent, and I answered their numerous questions with pleasure.

Snakes, or serpents, form one of the most beautiful and interesting families of the animal kingdom. Possessing the most perfect symmetry of form, and fitted by nature for a peculiar and lowly mode of life, they fulfil purposes in creation which could not have been performed so well by any other existing order. As a family, snakes are generally subdivided into the venomous and non-venomous—the former constituting scarcely a fourth part of the whole; so that the dread with which the whole order is viewed is, so far as three-fourths of the number are concerned, entirely without foundation. Many, such as the sea-species, live in society; but, generally speaking, land serpents are found independent and solitary. The land genera hibernate, that is, retreat to holes or under masses of foliage during winter, and become torpid. In this state the venomous kinds may be destroyed

without any risk of danger, as they are totally inactive, and their poison is both scanty and comparatively harmless. Though solitary during summer, some of the smaller species seem to congregate on the approach of hybernation; for they are sometimes found in vast numbers twined and tangled together in their burrows. In some cases this dormancy commences about October, and continues till April, when they come forth in a lean and feeble condition.

Like all slow breathers, serpents can exist for a long time without food. The boa-constrictor has been known to live six months without the least nourishment; and the rattle-snake is said to have existed for a year and a half in a similar condition.

Of the lower animals, none have been the objects of such wide-spread, and long-continued prejudices as serpents. In every country, ancient and modern, they have been viewed with aversion, and yet no class of animals has furnished man with so many mythological symbols and allegories. So many, indeed, are the legends respecting serpents, that it would require a large volume to contain them; the Persians, Egyptians, Greeks, and other ancient nations having each some peculiar attribute which they ascribe to these reptiles.

As the impersonification of the evil principle, the serpent is associated with the first transgression and fall of man; snakes armed the hand of Discord; and the Furies were represented with them wreathed round their heads instead of hair. As an emblem of prudence and circumspection, as well as from their reputed medicinal virtues, they were the attribute of Æsculapius; twisted round the caduceus of Mercury, they were the type of insinuating eloquence; and, from the venomous powers of many of the race, they were used as the symbol of torment. Among the Egyptians, the serpent was the emblem of fertility; while the circle formed by a snake biting its own tail, without beginning or end, was the chosen symbol of eternity. The habit which the cerastes has of rearing up when it is approached, caused the ancient inhabitants of the countries watered by the Nile to believe that this serpent guarded the fields which it inhabited; hence it was made the emblem of the protecting divinity of the world, and, as such, sculptured on the two sides of a globe, placed on the porticos of all their temples. Many of the

barbarous tribes inhabiting the western coast and central regions of Africa entertain a similar veneration for serpents, and not only permit them to swarm about their huts without molestation, but even pay them divine honours, by erecting temples for their worship. The cobra di capello is venerated by a certain class of Hindoo fanatics, with whom the murder of the reptile is all but a capital crime.

The origin of some of these allusions and superstitions is obvious; of others it is obscure; but, without entering minutely upon such an inquiry, it is no doubt to the noxious properties of some of the serpent family, to their peculiar habits and appearance, and to their greater prevalence and destructive powers at an early period of history, that we are to ascribe the fear, mingled with hatred and veneration, with which they have inspired the human race.

The utility of serpents in the scheme of creation may be somewhat puzzling to those who take a narrow view of external relations, and look upon everything as destined merely to subserve the purposes of man. To such, however, as extend their views beyond this selfish limit, the serpent family will appear quite as necessary to the general harmony as the most innocent and most directly serviceable of the lower animals. Even though the enlightened and diligent might fail to detect a single useful property in these animals, analogy would warrant the conclusion that nothing has been made in vain; and our general ignorance of creative design should teach us caution in pronouncing upon the intentions of Him of whom we are the handiwork. As it is, we see the serpent tribe accomplishing certain purposes steadily and harmoniously. They keep in check slugs, worms, insects, smaller reptiles, and such-like vermin, and, in turn, become the food of other creatures. They occupy waste places, as heaths, pestilent marshes, moist jungles, and savannahs—situations but partially occupied by other existence; and, therefore, fulfil the great law, that every region should be replete with its own peculiar life and enjoyment. Serpents may be said to have an almost universal range, but are more numerous towards the torrid zone, and become rare and diminutive in cold regions. Cold latitudes do not agree with the true serpents; it is in warm climates that their number, their venom, and their volume attain their maximum. Desert

places in the tropics form their head-quarters; but the numerous enemies they have among the smaller quadrupeds and birds keep their increase in check. The wild hog, peccary, badger, hedgehog, weasel, civet; ichneumon, and other carnivora, devour them with avidity, apparently regardless whether the species be venomous or non-venomous; the stork, the serpent-eater, the kite, laughing falcon, and buzzard, are their implacable enemies; while man wages incessant war against them wherever he and they come in contact. The desert and unreclaimed wild are the proper fields for their increase: the progress of cultivation in any country is always equivalent to their extirpation.

The ibis was held sacred by the Egyptians for its real or supposed services in destroying offensive and poisonous reptiles. Its bill is certainly not well adapted for the destruction of large serpents; but as the young, both of water and land reptiles, must have abounded in the plain of the Nile, the bird may have performed the more efficient service of ridding the country of these pests before they reached a state of dangerous maturity. The ichneumon, another inhabitant of Egypt, has scarcely been less celebrated than the ibis for its services in destroying serpents, lizards, and crocodiles. Though too timid and weak for the successful attack of these animals in their adult state, it is, nevertheless, one of the main checks to their increase, as it is continually on the search for their eggs and young, upon which it preys with avidity. Stories are sometimes told by travellers of encounters between the ichneumon and serpents, in which the former, though frequently bitten, is always ultimately successful, as it instinctively seeks the remedy of some herb as soon as it feels the effect of the poison.

In the Western States of North America, where rattlesnakes are plentiful, the hogs kill and eat them; nor is their bite formidable to their swinish antagonists, on whom their venomous fangs seem to produce no effect. Some pigs that had been left on an island in America, so infested by rattlesnakes that it was impossible to land there, completely cleared it of every serpent. It is owing to this well-known fact that it has obtained popular credence in these districts that hog's lard must be a kind of antidote to their poison.

But it is not alone the lower animals that feast on the

serpent race. The American Indians, it is said, often regale on the rattle-snake, the most venomous of the whole tribe, and they also never receive any injury from the flesh of those animals that they shoot with poisoned arrows. When they find a snake asleep, they thrust a forked stick over its neck, which they keep immovably fixed to the ground, giving the snake a piece of leather to bite; and this they pull back several times with great force, until they observe that the poisonous fangs are torn out. They then cut off the head, skin the body, and cook it as we do eels; and the flesh is said to be extremely white and good. The Doko, a wild pigmy race inhabiting Southern Abyssinia, destroy numbers of serpents which inhabit the bamboo jungles of their country, cook and eat them, esteeming them a very savoury morsel. In Stedman's account of Surinam, the natives are described as partial to the flesh of the boa, the oil or fat of which they also employ for medicinal purposes. The flesh of the common viper was formerly of high esteem in Europe as a remedy for various diseases, but particularly as a restorative. Dr. Mead affirms that he himself has seen good effects from it in cases of obstinate leprosy. The ancients prescribed it boiled, and to be eaten like fish; for, when fresh, the medicine was much more likely to take effect than when dried, and given in the form of a powder. Mr. Keysler relates that Sir K. Digby used to feed his wife, who was a most beautiful woman, with capons fattened with the flesh of vipers.

Though the poison of the serpent be justly terrible to us, it has been given to very good purposes for the animal's own proper support and defence. Without this, serpents, of all other animals, would be the most exposed and defenceless—without feet, for escaping a pursuit; without teeth capable of inflicting a dangerous wound, or without strength for resistance; incapable, from their size, of finding security in very small retreats, nothing was left for them but a speedy extirpation. But, furnished as they are with powerful poison, every rank of animals approach them with dread, and never seizethem but at an advantage. Nor is this all the benefit they derive from it. The malignity of a few serves for the protection of all. Though not above a tenth of their number are actually venomous, yet the similitude they all bear to each other excite a general terror of the whole tribe; and

the uncertainty of their enemies as to which possesses the poison, makes even the most harmless formidable. Thus Providence seems to have acted with double precaution; it has given some of them poison for the defence of a tribe naturally feeble, but it has thinned the numbers of those which are venomous, lest they should become too powerful for the rest of animated nature.

All the venomous species bring forth their young alive, in consequence of the egg being hatched internally before it is laid, whence the general name of vipers, a contraction of *vivipares*.

With reference to the coloured markings of the respective races, it is extremely diversified. In general there is an analogy between the colours of snakes and the surrounding objects in the places which they inhabit—a circumstance wisely ordered by nature for their protection from their numerous enemies. Among the climbing species, many are green, so as to resemble the leaves of the trees they inhabit; some can scarcely be distinguished from naked branches; while others present markings like that of an old trunk covered with mosses and lichens. Fresh water snakes are usually of a sombre and uniform colour—the green and blue tints of the sea confounding them with the waves of that element. The vipers of the desert are of a dull, sandy colour; those of marshes, of a dusky brown; while others have their integuments covered with the most brilliant hues, in rivalry of the tropical flowers amid which they luxuriate.

The non-venomous species are harmless, so far as poison-fangs are concerned; but there are several which grow to such a size as to become very formidable opponents. Of these, by far the most common are the various species of boa. There are several other innocuous serpents which attack their prey in the same manner as the boas, but none of these exceed twelve or sixteen feet in length, and, of course, are barely a match for a sheep or a goat. In general, it may be said of the non-venomous orders that they are harmless creatures, living in waste places, their peculiarly abstinent nature, and periodical torpidity, limiting their wants to those of mere existence. It is true that their close resemblance to the venomous orders renders them indiscriminately the object of

man's aversion, and so long as there is difficulty in recognising the venomous from the inoffensive, both will equally suffer from his antipathy. The black snake of America is said to be extremely useful in clearing houses of rats and mice, both of which they pursue with agility. The Æsculapian serpent meets with equal attention from the Italians, being permitted to crawl about their chambers, and even beds; the boynua is a favourite with the Ceylonese; and some of the Japan species are treated as pets and ornaments. Many of these Eastern snakes are certainly most beautifully marked and coloured, and could we only banish the idea of danger from our minds, there is little doubt of their meeting with equal favour among Europeans.

As we advanced farther into the interior, vegetation disappeared, and we found ourselves in sight of an immense plain. The sun beat right down upon our heads—the sand burned our feet—it was a desert—a desert without an oasis—the only green things being a few withered geraniums and some sort of grass, that contrasted strangely with the aridity of the soil.

“What a difference between the country we have just left and this!” said Jack sighing.

“It is Arabia Petrea,” replied Ernest; “a volcano. My feet burn as if I were walking on hot irons.”

As we could not stand against the overpowering rays of the sun, we retraced our steps, and threw ourselves down behind some large tufts of a plant that grew among the rocks, and which I recognised as the euphorbia, commonly called wolf's milk, the juice or gum of which is one of the most violent and subtle poisons in the world. The inhabitants of the Cape of Good Hope make use of it to poison the waters where the wild beasts come to drink. They are obliged to watch their flocks, lest they might happen to drink of the same spring; but they do not mind losing a few sheep, as they are richly paid for it by the magnificent furs that they obtain from the lions, tigers, hyenas, and such like beasts that are poisoned by the water. The Hottentots do more—they eat the flesh of the animals thus poisoned, and are said never to experience any ill-effects from it.

I gathered the euphorbia which had congealed in the sun, and filled a small bottle with the little drops of hardened

gum. I intended to use it in preparing the skins of birds and other animals; it preserves them from corruption, and keeps out all insects. It likewise enabled us to get rid of the monkeys that were every now and then making an inroad into Falcon's Nest: I took care afterwards to envelope it carefully in paper, and write on the outside, in large letters, "Poison," so as to prevent any danger resulting from it.

Here we also secured a piece of amianth, an incombustible mineral flax, which may be drawn into threads and woven into cloth. It supplied us with some incombustible wicks, which were of great use to us.

We now bethought ourselves of drawing this expedition to a conclusion, and resolved to return to our boats. But we had still to collect together the various products of this new territory that we had set apart for conveyance home, which occupied us some considerable time. This done, we embarked on our homeward voyage, and, in order to reach Rockhouse as soon as possible, we continued our navigation during the night, and were rewarded for our diligence by again witnessing an ocean scene of rare splendour. Towards morning, Fritz called my attention to what appeared to be breakers. On looking more closely, however, we found this to be a very broad and extensive sheet of phosphorescence, similar in some respects to what we had already observed on a former occasion. It extended in a direction from east to west as far as the eye could reach. I immediately cast the towing-net over the stern of the pinnacle as we approached nearer the luminous streak, to ascertain the kind of creature that produced the phenomenon in this instance. The boat soon cleared through the brilliant mass, from which, by the disturbance, strong flashes of light were emitted; and the shoal may have been a mile in breadth; the passage of the vessel through them increased the light around to a far greater degree, illuminating every part of the deck. On taking in the towing-net, it was found half filled with pyrosoma, which shone with a beautiful pale greenish light; after the mass had been passed through, the light was still seen astern, until it became invisible in the distance, and the whole of the ocean then became hidden in darkness as before this took place.

When the day broke, we had made considerable progress on our homeward way. The morning was fine, the weather was lovely, the sky was cloudless; there was no wind, yet the waves were swollen as if by a storm, and threatened to swallow us; we heard at the same time a noise like violent rain. "There are enormous marine monsters!" cried Francis. "Whales, I believe; such an immense shoal! They will swallow us up!"

"No," said Ernest, quietly, "don't be alarmed; the whale is a gentle and harmless animal when not attacked. I am very glad to see them so near: We shall pass as quietly through the midst of these colossal creatures as we did through the shining zoophytes; doubtless the whales are searching for them, for they constitute a principal article of their food."

They were now very near us, sporting on the surface of the water, or plunging into its abysses and forcing out columns of water through their nostrils to a great height, which occasionally fell on us and wetted us. Sometimes they raised themselves on their huge tails, and looked like giants ready to fall on us and crush us; then they went down again into the water, which foamed under their immense weight; then they seemed to be going through some military evolutions, advancing in a single line, like a body of regular troops, one after another, swimming with grave dignity; still more frequently they were in lines of two and two. With the power to overturn us with a stroke of their tail, they never noticed us; they seemed to be satisfied with each other's society. We were truly sorry to see their mortal enemy appear amongst them—the swordfish of the south, armed with its long saw, remarkable for a sort of fringe of nine or ten inches long, which distinguishes it from the swordfish of the north. They are both terrible enemies to the whale, and, next to man, who wages an eternal war with them, its most formidable foes. The whales in our south seas had only the swordfish to dread; as soon as they saw him approach, they dispersed, or dived into the depths of the ocean. One only, very near us, did not succeed in escaping; and we witnessed a combat, of which, however, we did not see the event. These two monsters attacked each other with equal ferocity; but as they took an opposite direction to that we were going, we soon lost

sight of them ; but we shall never forget our meeting with these wonderful giants of the deep.

At length we arrived in safety at Rockhouse, and received the congratulations of the ladies, who welcomed us home with their wonted warmth. We would gladly have repeated our voyage to the resplendent scenery of the territory we had



just quitted, but we had now to occupy ourselves with the usual routine of our harvest and other labours.

One evening, whilst reposing from the fatigues of the day, one of my sons observed to Jenny that he had forgotten whether there were thirty or thirty-one days in July. Our young friend said that whilst yet in solitude on her own island, she had called to mind a somewhat curious mode of bringing to her recollection the number of days in each month which she had once heard of. This consisted in counting the

knuckles of the fingers. First she closed her left hand; then, beginning with the knuckle at the root of the forefinger, she counted the knuckles and the intervening spaces; the months falling on the knuckles containing thirty-one days, those falling on the spaces between, thirty days, excepting February, which has twenty-eight days only, and in leap year twenty-nine. Thus, the first knuckle was January, 31; the first space, February, 28; the second knuckle, March, 31; the second space, April, 30; and so on to the knuckle of the little finger, which represented July; then, returning to the knuckle at the root of the thumb, August, 31; the next space, September, 30; and so through the entire year. As regards reckoning time generally, she followed much the same plan as that ascribed to Robinson Crusoe. By this means she knew that her exile extended, over a period of nearly three years.

We often passed the evening hours with little reminiscences of this kind, when we grew tired of reading, and sought relaxation in general conversation.

CHAPTER XLII.

CONCLUSION.

THE following year was characterized by an early breaking up of the rainy season. When the clouds had fairly passed away, and the fine weather had finally set in, Fritz and Jack set off in the kajack on a visit of inspection to Shark Island. When they arrived there everything in that section of our colony was found to be in tolerable order. It has already been stated that two of the ship's guns had been mounted on the island; these the boys fired off, partly to test their efficiency, and partly with a view to give us notice of their safe arrival. They thus ascertained that both guns and powder were uninjured by the wet and in serviceable condition; but what was their surprise and consternation when they distinctly heard three separate detonations of a similar character in the distance. Their first impulse was to answer these reports by firing again; but, after a brief consultation, the boys determined to consult me before doing anything more. To jump

into the canoe and put off was the work of an instant; the boat appeared scarcely to touch the surface, so rapidly did they impel her over the waves.

The day being fine, I and the other members of the family, including our new guest, were tranquilly enjoying ourselves on the beach, which, after our two months' in-door seclusion, was particularly agreeable. All at once I descried the boys in the kajack hastening towards the shore with desperate exertion. I instantly suspected something unusual had occurred, but of what nature I was utterly at a loss to conceive. I had heard the two guns fired, as I expected, but knew nothing of any other reports. It was my turn to be astonished when the boys informed me that their shots had been answered from a distance. I at first imagined that their ears had deceived them, and that the sounds they had heard were nothing more than the echoes of their own guns; they would not, however, listen to this view of the case, and insisted that, though the reports were distant, yet they had been perfectly well defined. I consequently arrived gradually at the conclusion that possibly, after all, the hopes that I had long entertained of a rescue from these shores were about to be realized; but I must add that these hopes were now not unmingled with fears: for might not these strangers be the crew of some piratical craft come to plunder or destroy us, as well as a friendly ship manned with a friendly crew? Thus, strange to say, the desires that I so strongly felt for many years were now completely dispelled.

Agitated by these conflicting feelings, I assembled the entire family in solemn conclave; and it was decided that we should, at all events, endeavour to ascertain whether or not a ship had really arrived on the coast; and, when this point was settled, regulate our proceedings by the course of events. My first resolution was to organise a system of defence, and provide for our safety. As evening was now drawing in, I resolved that one of us should mount guard, in order to watch the slightest indication of a ship being in our neighbourhood. The night, however, was not so tranquil as we had hoped. The rain commenced afresh, and a perfect storm broke over us, which continued two days and two nights without intermission. Towards morning on the third day, the rain ceased, the elements became calmer, and I resolved to embark without

further delay for Shark Island, and ascertain whether the strange ship was still in the offing. Accompanied by Jack, I started accordingly, and immediately on arriving ascended the highest point of the rock; but, though I scanned the horizon with eager eye, not the smallest object met my gaze in the direction of the sea. I then resolved to fire three more shots, at intervals of two minutes, to determine whether or not the sounds had deceived the inexperienced ears of my two boys. I listened attentively, and, in about a minute, the report of a cannon rolled in the distance, then another, and finally a third. There was no longer room for doubt; the strangers were still in the vicinity, though imperceptible to the eye. This conviction was a new source of surprise to myself, and Jack leaped about me like a dancing bacchante. We had brought a flag with us, and this was instantly hoisted twice to the top of the staff, as a signal to those on shore that we had good news to communicate.

Leaving my companions as a garrison on Shark Island, with instructions to fire as soon anything hove in sight, I embarked for Rockhouse to concert with the family what steps we should now take. I found them all labouring under a degree of excitement not unwarrantable under the circumstances, but which I felt it necessary to calm by informing them that nothing had yet been discovered beyond the fact of the ship being still on the coast; and it was decided that all should remain within doors, whilst Fritz and I went off in the direction whence the reports had proceeded.

About the middle of the day we started on our search, and advanced rapidly towards the west, directing ourselves towards a distant cape beyond which we fancied the strange ship might be visible; we had likewise concluded from a variety of indications that the stranger was anchored somewhere on the coast, though I still entertained a lingering impression that the whole might turn out to be a delusion. This doubt, however, was destined soon to yield to other sentiments; for great was our joy and gratitude to the Giver of all Good when, on rounding the extreme point of the cape, we beheld a noble vessel lying snugly at anchor in a little bay, at no great distance from us, with the English colours flying from one of the masts. I seek in vain to find words that will express the sentiments which filled our souls. We elevated

our hands and eyes toward Heaven, and thus returned our thanks to God for His great beneficence. If I had permitted it, Fritz would have thrown himself into the sea and swam off to the ship; but I was afraid that, notwithstanding the English flag, the vessel before us might be a Malay corsair, which had assumed false colours in order to deceive other



vessels. We remained at a distance, not liking to venture nearer without being more certain what they were. We could see all that was passing on board the vessel. Two tents had been raised on the shore, tables were laid for dinner, quarters of meat were roasting before blazing fires, men were running to and fro, and the whole scene had the appearance of an organised encampment. Two sentinels were on the deck of the vessel, and when they perceived us they spoke to the

office, on duty who stood near, and who turned his telescope toward us.

"They are Europeans," cried Fritz; "you can easily judge from the face of the officer. Malays certainly would be more dusky than that." Fritz's remark was true; but yet I did not like to go too near. We remained in the bay, manœuvre-



ing our canoe with all the dexterity of which we were capable. We sang a Swiss mountain song, and when we had finished, I cried out through my speaking-trumpet these words, "Europeans, good men!" But no answer was returned. Our song, our kajack, and, more than all, our costume, I guess, marked us for savages, from the officer making signs to us to approach, and holding up knives, scissors, and glass beads, of which the savages of the New World are generally so desirous. This mistake made us laugh; but we did not approach, as we

wished to present ourselves before them in better trim. We contented ourselves with exclaiming once more, "Europeans!" and then darted off as fast as our boat would carry us; the joy that we felt redoubled our strength. We landed near Rockhouse, where our dear ones were anxiously awaiting us. Our prudence was approved. Jenny alone thought that we should have gone and discovered who the strangers were.

Few of us felt any inclination for sleep that night. The tenants of Rockhouse were all in a state of the utmost commotion. Our guest was delighted at the prospect of relieving the anxieties of her parent, and of again beholding him; the younger boys were intoxicated with a multitude of vague anticipations; and we were all more or less affected by the probable results of this unexpected and important event. My wife and I calmly talked over the uses we should make of this opportunity. We felt that years were drawing upon us, and, consequently, that it would not be advisable to abandon the comforts we had drawn around us here, even were we certain of enjoying the more refined luxuries of Europe; still, the advantages that we might derive from having an open communication with the old country were many, and as the strange ship presented us with the means for this, we felt that everything was almost within reach that we could desire to render ourselves perfectly happy.

At day-break, the pinnace was freighted with fruits and fresh provisions of various kinds, such as we thought might be acceptable to the crew of the ship. After an early breakfast, Fritz and I set sail, having taken every precaution to make the first impression of our visit as favourable as possible. We counted on the friendly disposition of the English; but, if they deceived us, we were disposed to sell our lives dearly. We loaded our cannons and guns, and took with us all the defensive arms that we could find. On nearing the ship, we fired a gun and hoisted English colours, then, approaching within hail, we dropped anchor.

It would be quite impossible to describe the surprise our appearance excited on board the stranger. We were saluted with a hearty cheer; and I embarked in the kajak to have an interview with the captain. He received me with a degree of frankness and cordiality that was highly gratifying. I told him our story, with which he was greatly interested. In

turn, he informed me that he held the rank of lieutenant in the royal navy; that he was bound for Sidney with despatches. I learnt, moreover, that he was well acquainted with Colonel Montrose, and that he had been requested by him to examine these coasts, and endeavour to obtain some tidings as to the fate of his daughter. In consequence, he manifested the greatest desire to see her, and assure her that her father was alive. He informed me that a tempest of four days' duration had thrown him off the course which he followed for Sidney and New Holland; and thus he had been driven on this coast, where he had renewed his wood and water. "It was then," added he, "that we heard the reports of cannon, which we answered; on the third day, new discharges convinced us that we were not alone on the coast, and we resolved to wait until, by some means or other, we discovered who were our companions in misfortune. But we find an organized colony and a maritime power, whose alliance I solicit in the name of the sovereign of Great Britain."

This last sally made me laugh, and I cordially pressed the hand which Captain Littlestone extended to me.

I invited Captain Littlestone to visit us at Rockhouse, and extended my invitation to Mr. Wolston, a distinguished machinist, who, with his wife and two daughters, had taken a passage on board, intending to settle in one of the British colonies. These gentlemen accordingly accompanied us in the pinnace, which, on passing Shark Island, was saluted by Jack with a military salute. On arriving at the beach, the family were there to meet us, and we were welcomed with due honour. Jenny was half wild with happiness at the sight of a fellow-countryman, and one who brought intelligence of her father. Mr. Wolston was so much pleased with our plantation, that he at once decided upon remaining with us. This to me was a source of much gratification, as, being himself a skilful engineer, and having all the appliances on board suited to his profession, he would be of great benefit to the colony, apart from the society his family would afford us.

The morning was devoted to the joy and pleasure that this news caused; but considerations of a painful nature occupied my mind. The ship which now presented itself was the only one we had seen in fourteen years, and perhaps as long a

period might elapse before another appeared, should we let Captain Littlestone and his ship leave us without any addition to his crew. These questions affected the dearest interests of our family. My wife did not wish to return to Europe, I was myself too much attached to my new life to leave it, and we were both at an age when hazards and dangers have no attraction, and ambition has resolved itself into a desire for repose. But our children were young, their life was but just commencing, and I did not think it right to deprive them of the advantages which civilization and a contact with the world presented; and then, again, Jenny, since she heard that her father was in England, did not conceal her desire to go there; and, although we regretted losing this amiable girl, yet it was impossible to detain her. So at last I decided to call my children together, and ascertain their sentiments. I spoke to them of civilized Europe, of the resources of every kind which society offered to its members, and I asked them if they would depart with Captain Littlestone, or be content to pass the remainder of their lives upon this coast?

Fritz and Jack declared that they would rather remain. Ernest was silent, but I saw by his countenance that he had decided to go, and I felt that his taste for science required a larger field than our island. I encouraged him to speak; he confessed that he had a great desire to return to Europe for a few years, and his younger brother, Francis, declared that he would willingly accompany him. My good Elizabeth submitted to the sad necessity; she had a mother's objections, but she studied the advantage of her children. Captain Littlestone readily consented to take our three passengers.

The ship was shortly afterwards brought round to Safety Bay, and we were introduced to Mr. Wolston's interesting family, who were highly delighted to find that this was to be their future home; and shortly afterwards my wife hinted at the probability of a union between the two families, as Fritz and Jack had already settled their affections upon the daughters, so that, all things considered, we had great reason to be thankful for the great mercies that had been showered down upon us.

My story is now drawing to a conclusion, and the remainder may be briefly stated. I exchanged some of the productions

of the island with Captain Littlestone for a supply of fire-arms and gunpowder. The remainder of our accumulated stores, consisting of furs, ivory, pearls, coral, spices, fruits, and ostrich feathers, was placed on board as merchandise, under the care, and at the disposal of, my sons. And the time arrived when we must prepare for their departure. The



idea of this separation was felt acutely by my wife; but, knowing it was for the best, and that it might be a source of many comforts to ourselves to have relations with Europe, besides being necessary to the welfare of our children, she became resigned to the trial, and I felt confident that afterwards, with the help of our new friends, I should be able to restore her to cheerfulness.

The evening before the day that my sons were to leave me, I had a long interview with them, during which I be-

THE SWISS FAMILY ROBINSON.

sought them to act worthily, and conduct themselves prudently, in the new sphere in which they were about to move; above all, I counselled them not to forget the precepts of religion, but always to be mindful of the duty they owed to the Great Ruler of the Universe. I then bestowed upon them my benediction, and charged the eldest with my final instructions.

After a sleepless night for us all, the day of departure dawned, and the trial of a long separation had to be undergone. As Ernest takes this narrative of our adventures with him to Europe; I have given him permission to have it published there, being of opinion that it may be the means of encouraging others whom the Creator, in His divine mercy, might place in a similar position with ourselves. It is, therefore, only possible for me to add a very few words more to the manuscript.

The ship that is to carry away from us our two sons and our beloved guest is making final preparations for sailing—a few hours more and a portion of our little community will be far distant from us. It would be difficult to describe my own feelings at this moment, or to give an adequate impression of the grief that agitates my dear wife. I add these closing lines whilst the boat is waiting to convey my sons and their companion on land. May they be happy! May they encounter the pains and trials of the world with equanimity! This narrative has occupied many happy hours of my life—I close it by invoking the Divine blessing for my children. May they gain the esteem of those with whom they are now to mingle, and may they never cease to deserve it!

THE END.

